# Geographic Coordinate Data Base

# Data Collection Attribute Definitions Version 2.0

Prepared by
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Service Center
Division of Data Management
Branch of Geographic Coordinates
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# BLM Baseline Attribute Definitions, Version 2.0

## Acknowledgements to Reviewers

The attribute definitions listed in this document have been under development for the past two years. They were initially developed by the BLM GCDB Core Team.

The Core team definitions were then tested. and modified by the Developmental Data Base Integration Team (OBIT), the New Mexico state Office prototype team, and BLM GCDB Managers from all twelve BLM administrative states.

The attribute definitions, and the uses and definitions of codes, have been tested and reviewed by many participants:

The Interagency Work Group, consisting of representatives from BLM, USGS, and USFS.

BLM GCDB managers and their representatives.

The BLM Service Center Data Modeling Branch.

The BLM Service Center Target System Data Administration Branch.

A cadastral review team, consisting of Gary Oviatt, ID-942; Ron Scherler, OR-942; and Keith Williams, WO-720, to verify attribute definition accuracy.

The Service Center Branch of Geographic Coordinates thanks all those who contributed to this document. The definitions in this document truly represent a cooperative team effort.

## BLH Baseline Attribute Definitions, Version 2.0

# Summary and Introduction

February 14, 1991

This document contains attribute definitions for the BLM GCDB Target System logical data model and the BLM GCDB data Attributes are listed in alphabetical order by collection. attribute name.

The format for attribute definitions is as follows:

data model name for attribute. Attribute Name:

Field Name: physical database and model diagramming

name.

Attribute length in physical data model. Attribute Length: PCCS Field Length:

Field length if collected by PCCS. DED Picture:

BLM Honeywell Data Element Dictionary

format for field length.

The scope of attribute definitions is primarily for BLM GCDB Data Collection of BLM record data. However, because it is anticipated that BLM may include additional sources in future data collection efforts, definitions for data from state, county, and private survey records are also included.

Some codes or definitions do not apply to every state, region, and BLM office. This does not invalidate these definitions. It is recognized that every BLM office will not use every code and definition.

The attribute names have been selected to provide uniqueness in and conformity to database design and implementation. attribute names and codes do not conform to traditional BLM cadastral survey naming conventions. However, traditional naming conventions can be noted in attribute definitions. interfaces can reflect traditional and discipline-specific names as needed without disrupting the database design requirements.

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Attribute Name: Accessories Taken

Field Name: ACCESS\_TAKEN

Attribute Length: 1
PCCS Field Length:

**DED Picture:** 9(1)

This attribute indicates whether accessory measurements, such as bearing tree ties or other accessories, exist for a corner. The actual accessories are not included, but this attribute will indicate whether or not accessories exist.

"The purpose of an accessory is to evidence the position of the corner monument. A connection is made from the corner monument to fixed natural or artificial objects in its immediate vicinity, whereby the corner may be relocated from the accessory." (BLM 1973, paragraph 4-83). Accessories are a part of the monumentation. (BLM Glossary, 1980, page 13).

Users should refer to the official BLM record for corner descriptions and should not rely on this data for legal land surveys.

<u>Code</u>	<u>Description</u>
0	No accessories exist
1	Accessories exist

Attribute Name: Active Status

Field Name: ACTIVE

Attribute Length: 1
PCCS Field Length:

**DED Picture:** 9(1)

This attribute describes whether a physical record is active. For example, when a new corner coordinate value is computed, the former coordinate value is marked inactive and the new value active

<u>Code</u>	<u>Description</u>
0	Inactive
1	Active

Attribute Name: AHDS Point Identifier

Field Name: AHDS\_PT\_NO

Attribute Length: 10 PCCS Field Length:

**DED Picture:** 9(10)

This attribute is the Alaska computation system data entry point identifier, where different corner data types for a township are stored in separate files. The ID1 and ID2 codes identify the data type in a file. These codes are:

<u>ID1</u>	ID2	<u>Data Type</u>	<u>Description</u>
0	6	Point	Surveyed township corner, unmonumented
0	7	Point	Unsurveyed township corner, unmonumented
0	8	Point	Surveyed township corner, monumented
0	6	Point	Surveyed township corner
1	0	polygon	Surveyed meander line
1	1	Line	U.S. Survey interior lines
1	2	Line	Mineral interior line
1	3	Line	Rectangular line
1	4	Line	Ties
1	5	Line	Protracted lines
1	6	polygon	Unsurveyed meander lines
1	7	polygon	QCD
1	8	polygon	Tract A, B etc, except full township
1	9	point	Mineral survey interior corner
1	10	point	U.S. Survey interior corner
2	1	point	Meander corner
2	2	polygon	U.S. Survey
2	5	polygon	Mineral Survey
2	8	point	Rectangular corner, monumented
2	9	point	Rectangular corner, unmonumented
2	10	point	U.S. Survey WCMC
2	11	point	Mineral Survey WCMC
2	12	point	U.S. Survey corner unmonumented
2	13	point	U.S. Survey boundary corner
2	14	point	U.S. Survey meander corner
2	15	point	Mineral Survey meander corner
2	16	point	Mineral Survey boundary corner
3	0	point	Meander corner, unmonumented
3	1	point	Witness corner, meander corner
3	2	point	Witness corner, mineral survey
3	3	point	Witness corner, U.S. survey
3	4	point	Witness point
3	5	point	Angle point
3	6	point	Auxiliary meander corner
3	7	point	U.S. location monument
3	8	point	Witness corner, rectangular corner
3	9	point	Angle point, unmonumented
4	0	Line	International boundary
4	2	Line	State of Alaska park boundary
4	4	Line	State of Alaska borough boundary

ID1	ID2	Data Type	<u>Description</u>
4	6	Line	Regional native corporation boundary
4	8	Line	Recording district boundary
5	0	Line	BLM district boundary
5	2	Line	Park Service boundary
5	4	Line	Forest Service boundary
5	6	Line	Fish and Wildlife boundary
5	8	Line	Military boundary
5	9	Line	Naval Petroleum Reserve Number 4
6	0	point	Triangulation station used
6	1	point	Triangulation station available
7	0	polygon	Unsurveyed land application

Within a file the point number identifiers are as follows:

Approved Rectangular Survey work-

- 1. All true points are to be assigned an even number
- 2. All witness corners and witness points are to be assigned an odd number.

Meander Corners, Witness Meander Corners, and Meander Points along a traversed meander line of any survey -

- 1. All true points for meander corners are to be assigned even numbers.
- 2. All witness corners are to be assigned an odd number.

Meander Points along a traversed meander line of any survey-

1. Points along a meandered shoreline can be numbered sequentially.

#### U.S. Survey Approved -

- 1. Odd numbered points are assigned for use as control or reference points. Reference points are points of known latitude and longitude, and are used to locate other features of the survey.
- 2. The point selected as the point of beginning of the survey polygon, MUST be assigned even number values. Numbering continues sequentially to the polygon. The ending point MUST have the same latitude and longitude as the point of the beginning.
- 3. The traverse of each survey polygon MUST be separated by an unused point number, with the traverse for the

next survey polygon beginning with the next available even number.

# Mineral Survey -

- Odd numbered points are assigned for use as control, or reference points. References points are points of known latitude and longitude and are used to locate other features of the survey.
- 2. The point selected as the point of beginning for the polygon MUST be assigned an even number value. Numbering continues sequentially to the point of ending. The ending point MUST have the same latitude and longitude as the point of beginning.
- 3. The traverse of each survey polygon MUST be separated by an unused point number with the traverse for the next survey beginning with the next available even point value.

#### Sources:

Alaska state Office, Appendix E, AHDS Methods and Procedures, from Alaska Data Collection Contract, March, 1989.

Alaska GCDB Project, AHDS ID1 and ID2 values, revised 9/25/90.

Attribute Name: Aliquot Part

Field Name: Aliquot\_Part

Attribute Length: 16
PCCS Field Length: 16
DED Picture: X (16)

This is ALMRS DED element number 2904 - Aliquot Part. It is required in the BLM GCDB Data Collection Q File processing as initially developed in Wyoming. Words between  $\{\ \}$  are edits to the ALMRS Data Element Dictionary. An aliquot part used in the BLM GCDB Data Collection will be a **nominal** aliquot part.

"An aliquot part is a {legal} subdivision of a section and results from {an equal division of halving and fourths}. For example, the division of a 640 acres section into 4 160 acre quarter-sections or sixteen 40 acre 'forties.' A 16-position entry is used to enter and store actual and nominal aliquot part Public Land Survey {System} (PLSS) data. See table below.

Aliquot part data is entered on line following a type of survey code entry "A" (forty acres or more) or "B" (under forty acres) first level aliquot part(s) (half section, quarter section, e.g. N2 or NE) are entered using a line(s) from the table below. Second level aliquot part(s) (qtr-qtr, half-half, e.g. NENE or N2S2) are entered using one, or a combination of, lines from the table below.

Third, fourth, and fifth level aliquot parts (under forty acres) (e.g. NESESW) begins by entering the code for the right two parts (SESW) from one of the lines below. Follow with the additional "B" lines one line per aliquot level pair. The additional levels are entered only in the columns below the appropriate first level quadrant (SW in this example). Acres for the five levels of aliquot parts of a section are: 1st-320 or 160: 2nd-40: 3rd-10: 4th-2.5: 5th-0.625.

Nominal 40 acre part(s) are to be entered for all non-aliquot part areas, e.g. lots, tracts, mineral surveys, etc. when survey data is entered. An X is entered for each nominal forty acres involved with the non-aliquot part area. This permits inference of the location of such areas within a section (or nominal section)."

		NE	1/4	Ŀ		NW	1/4	Ŀ		SW	1/4	ŀ		SE	1/4	<u> </u>
	N E	N W	S W	S E	N E	N W	S W	S E	N E	N W	S W	S E	N E	N W	S W	S E
All 640 acres	Х	X	Х	X	Х	X	Х	X	Х	X	X	X	X	Х	X	X
Half N2 320 acres S2 320 acres E2 320 acres W2 320 acres	X X	X X	X X	x x	x	X	X	X	X X		X X	X X	X X	X X	X X	X X
Quarter NE 160 acres NW 160 acres SW 160 acres SE 160 acres	X	X	X	X	X	Х	Х	Х	х	X	Х	X	Х	X	X	X
Half-of-Half N2N2 160 acres E2N2 160 acres W2E2 160 acres	X X	X X	X	Х	X	Х							X	X	Х	Х
S2N2 160 acres E2W2 160 acres W2W2 160 acres N2S2 160 acres S2S2 160 acres			X	X	Х	Х	X	X X	X	X X	X X	X X	Х		X	Х
Half-of-Quarter N2NE 80 acres W2NE 80 acres S2NE 80 acres E2NE 80 acres N2NW 80 acres W2NW 80 acres S2NW 80 acres E2NW 80 acres E2NW 80 acres M2SW 80 acres M2SW 80 acres M2SW 80 acres E2SW 80 acres M2SE 80 acres S2SE 80 acres E2SE 80 acres	x	XX	XXX	XXX	X X X	XX	XX	X	X	X	XX	X	x	X X	X X	XXX
Quarter-Quarter NENE 40 acres NWNE 40 acres SWNE 40 acres SENE 40 acres NENW 40 acres NWNW 40 acres	Х	X	Х	X	X	x										

SWNW	40	acres	X									
SENW	40	acres		X								
NESW	40	acres			X							
NWSW	40	acres				X						
SWSW	40	acres					X					
SESW	40	acres						X				
NESE	40	acres							X			
NWSE	40	acres								X		
SWSE	40	acres									X	
SESE	40	acres										Χ

Edits: "Convert the entered X'ed pattern to numeric ones (1) and the spaces to zeros (0) for efficient data base storage. Convert bit pattern to the alphanumeric for output. Entry of aliquot part data describing location, e.g. a water source instead of land survey, could use one or more of the alphanumeric equivalents from the table above. This would require a program to convert such entries to the 16-position form for the data base storage." ALMRS DED element 2904.

Attribute Name: Aliquot Part Identifier

Field Name: APE

Attribute Length: 12

PCCS Field Length:

DED Picture: X (12)

This attribute is the PLSS rectangular aliquot part identifier and is part of the coding in ALMRS DED element 2904.

Subdivision	Aliquot Part Identifier:
4 / 4	
NW 1/4	NW
NE 1/4	NE
SE 1/4	SE
SW 1/4	SW
N 1/2	N2
S 1/2	S2
E 1/2	E2
W 1/2	W2
N $1/2$ of NW $1/4$	N2NW
S $1/2$ of NW $1/4$	S2NW
E $1/2$ of NW $1/4$	E2NW
W $1/2$ of NW $1/4$	W2NW
N $1/2$ of NE $1/4$	N2NE
S $1/2$ of NE $1/4$	S2NE
E $1/2$ of NE $1/4$	E2NE
W $1/2$ of NE $1/4$	W2NE
N $1/2$ of SW $1/4$	N2SW
S $1/2$ of SW $1/4$	S2SW
E $1/2$ of SW $1/4$	E2SW
W $1/2$ of SW $1/4$	W2SW
N $1/2$ of SE $1/4$	N2SE
S $1/2$ of SE $1/4$	S2SE
E $1/2$ of SE $1/4$	E2SE
W $1/2$ of SE $1/4$	W2SE
NW $1/4$ of NW $1/4$	NWNW
NE $1/4$ of NW $1/4$	NENW
SE $1/4$ of NW $1/4$	SENW
SW $1/4$ of NW $1/4$	SWNW
NW $1/4$ of NE $1/4$	NWNE
NE $1/4$ of NE $1/4$	NENE
SE $1/4$ of NE $1/4$	SENE
SW 1/4 of NE 1/4	SWNE
NW $1/4$ of SW $1/4$	NWSW

Attribute Name: BLM Manual Edition

Field Name: BLM Manual

Attribute Length: 4
PCCS Field Length:

**DED Picture:** 9(4)

This attribute contains the year of the BLM Manual of Survey Instructions and its supplements under which a BLM cadastral survey was performed. The allowable values are: 1855 (reprinted as the Manual of 1871), 1881, 1890, 1894, 1902, 1930, 1947, and 1973. (BLM 1973, paragraph 1-1).

Attribute Name: Case Serial Number

Field Name: CASE\_NUMBER

Attribute Length: 15

PCCS Field Length:

**DED Picture:** X (15)

This number is used for identification of all lands and minerals case file. This follows the standard BLM method of case file numbering and includes GLO, BU {and OCS cases (BLM manual 1274).

Position in	Content	Group Level	Size	Pic
Code		Name		
1 and 2	ST-PRE	LS-SER-NO-STPRE	002	X (02)
3 thru 6	PREFIX	LS-SER-NO-PRE	004	X (04)
7	NUX-PRE	LS-SER-NO-NPRE	001	X (01)
8 thru 13	NUMBER	LS-SER-NO-NUM	006	X (06)
14 and 15	SUFFIX	LS-SER-NO-SUF	002	X (02)

Prefix for serial number positions 1 thru 6 generally identifies the federal (land) office which took the action. The geographic state and local office abbreviation, where the land in the case is located, will uniquely identify the case, to state & office.

Prior to April 1, 1988, prefixes could be identical for offices in different states, e.g. "L" for Lakeview land district in Oregon or "L" for Lewiston land district in Idaho. Therefore, to make the pre-April 1, 1988, serial numbers unique in a Bureauwide system, it is necessary to add the geographic state abbreviation to the land district or office prefix. For example, add to the "L" prefix as, ORL for Lakeview, Oregon and IDL for Lewiston, Idaho.

As of April 1, 1988, the prefixes established in D.E.2911 were adopted as the new BLM standard for serialized case file numbering.

At various times and often simultaneously, serial numbers were assigned to cases by the Washington office. These systems used BLM and BLMA. To keep positions 1 and 2 of the prefix proper "US" has been assigned, e.g. "USBLM and USBLMA." These series from Washington could involve lands in any state and therefore, serial numbers would not necessarily be consecutive within a given state.

The Case Serial Number is used in Alaska to identify Native Allotment lands until the allotments are surveyed.

Case Serial Number conforms to the definition for Serial/Entry Number, Case Records Identification DED number 2554.

Attribute Name: Central Angle

Field Name: Curve\_Delta

Attribute Length: 10 PCCS Field Length:

**DED Picture:** 9(10)

1) The angle at the center of radius of a circular arc included between the radii which pass through the beginning P.C. (point of curvature) and the ending P.T. (point of tangency) of the arc. This angle is equal in magnitude to the change in direction of the tangents of the arc which pass through the P.C. and P.T. In alignment surveys it is commonly called the delta angle.

2) The angle, in curve systems, containing compound curves or spiral and circular curves, between the beginning and ending radius, or the beginning and ending tangents. For spirals the central angle is called theta.

ACSM, 1978, <u>Definition of Surveying Terms</u>, page 7.

Attribute Name: Control Station Identifier

Field Name: STID

Attribute Length: 12
PCCS Field Length: 12
DED Picture: 9(12)

This attribute is a key for a physical database and was developed in previous physical data base prototype efforts. It is included since it may be used in the future to link to these efforts.

A control station is a point of known horizontal, vertical, or horizontal and vertical position, which may be used to compute positions of other points. The value for this attribute may be assigned by the agency or person who establishes the control station.

Attribute Name: Coordinate Determination Process

Field Name: HPROC\_CD

Attribute Length: 2
PCCS Field Length: 2
DED Picture: X (2)

This attribute defines the method of capture or procedure used for establishing a horizontal position or coordinate value. The default code for BLM GCDB Data Collection using the BLM PCCS programs is 31.

#### Code Description

- 10 Field Survey, specific computation methodology unknown
- 11 Global positioning System, NGS ADJUST reduction software
- 12 Global Positioning System, Magnavox reduction software
- 13 Field Survey, unadjusted
- 15 Inertial Surveying System, BLM reduction software
- Doppler Satellite Positioning, GEODOP III or IV reduction software
- 17 Global positioning System, specific reduction software unknown
- 18 photogram metric positioning or adjustment procedures
- 19 Photo-image zoom transfer, Colorado State Office
- 20 Coordinate Transformation method unknown
- 21 Coordinate Transformation Average Shift
- 22 Coordinate Transformation Lefti
- 23 Coordinate Transformation 2 D Affine
- 24 Coordinate Transformation 3 D Affine
- 25 Coordinate Transformation 2 D Conformal
- 26 Coordinate Transformation 3 D Conformal
- 27 Coordinate Transformation NGS, NADCON software.
- 30 Computed and Adjusted, specific method unknown
- 31 BLM PCCS Program
- 32 Compass Rule Adjustment
- 33 Transit Rule Adjustment
- 34 Least Squares Adjustment or Analysis, fully constrained
- 35 Least Squares Adjustment or Analysis, minimally constrained
- 36 BLM Univ. Maine Measurement Management Program or GTHING
- 37 BLM Alaska AHDS Computation
- 38 CRUSP Coordinate Geometry, BLM Eastern States
- 40 Digitized (table or tablet), unknown methods
- 41 Digitized (table or tablet) BLM MCI Methods
- 42 Digitized (table or tablet) FS Methods
- 43 Scanned or optically captured, specific method unknown
- 44 Scaled or manually measured
- 45 Digitized (table or tablet), BLM ADS Methods
- 50 BLM Protraction Diagram Coordinate Values
- 62 Digital Line Graph (USGS)
- 63 Accepted existing coordinate values. Determination process unknown
- 66 National Geodetic Reference System as supplied by the NGS
- 7. Unknown

The COORDINATE DETERMINATION PROCESS codes are comparable to values in the NGS Bluebook tables POS SRCE DEF (position source definition) and POS\_TEC\_DEF (position-technique definition). Because the NGS data are modeled differently than the BLM data there is not a one to one correspondence in all tables. The NGS codes and their comparable Baseline code values are as follows:

NGS POS SRCE DEF	Baseline Code	NGS Definition
A D F O S X	66 20-27 13 63 44	Last Official Adjusted Datum Shift Unadjusted Field Other Scaled, Approximate Superseded Adjustment Computed NAD27 Preliminary
NGS POS_TECH_DEF	Baseline Code	NGS Definition
0 A	Z	Null Trilaterated
B C	15	Inertial Combined
D E F	16	Doppler Traverse Triangulation
G H I	11,12,17	GPS Resection Intersection
J L N P V	22 27 18 11	Transcontinental Traverse Datum Shift Program Lefti Datum Shift Program NADCON4 Photogrammeteric VLBI

Attribute Name: Coordinate System

Field Name: CRDSYS\_CD

Attribute Length: 1
PCCS Field Length: 1
DED Picture: A (1)

This attribute defines the coordinate system basis expressed in X COORDINATE and Y COORDINATE attributes.

The default code for BLM GCDB Data Collection using the BLM PCCS program is  ${\tt C.}$ 

<u>Code</u>	<u>Description</u>
А	State Plane Coordinates
В	Universal Transverse Mercator (UTM)
C	Geographic Latitude/Longitude
D	Geocentric Cartesian
E	Astronomic Latitude/Longitude
7.	Unknown

Attribute Name: Coordinate System Index

Field Name: CRDSYS\_INDEX\_CD

Attribute Length: 4
PCCS Field Length: 1
DED Picture: X (4)

Some coordinate systems, defined in attribute COORDINATE SYSTEM, have sets of uniquely defining parameters.

# State Plane Coordinates

The state Plane Coordinate zones are part of the State Plane Coordinate system definition. In general zones are less than 158 miles wide and are legislatively made to be coincident with county boundaries. It may be possible to compute coordinates from more than one zone for an area. Listed below are four digit state plane codes for NAD 27 and NAD 83 as supplied from NGS publications and FIPS PUB 70, table 3.

No.	<u>State/Zone</u>	No.	State/Zone
0101	Alabama East	0102	Alabama West
0201	Arizona East	0202	Arizona Central
0203	Arizona West	0301	Arkansas North
0302	Arkansas South	0401	California I (1)
0402	California II(2)	0403	California III (3)
0404	California IV(4)	0405	California V (5)
0406	California VI(6)	0407	California VII (7)
0501	Colorado North	0502	Colorado Central
0503	Colorado South	0600	Connecticut
0700	Delaware	0901	Florida East
0902	Florida West	0903	Florida North
1001	Georgia East	1002	Georgia West
1101	Idaho East	1102	Idaho Central
1103	Idaho West	1201	Illinois East
1202	Illinois West	1301	Indiana East
1302	Indiana West	1401	Iowa North
1402	Iowa South	1501	Kansas North
1502	Kansas South	1601	Kentucky North
1602	Kentucky South	1701	Louisiana North
1702	Louisiana South	1703	Louisiana Offshore
1801	Maine East	1802	Maine West
1900	Maryland	2001	Massachusetts
2002	Massachusetts Isld		
2101	Michigan East (replaced by		
2102	Michigan ctrl (replaced by		
2103	Michigan West (replaced by	2113)	
2111	Michigan North	2112	Michigan Central
2113	Michigan South	2201	Minnesota North

3.7		3.7	
No.	<u>State/Zone</u>	No.	<u>State/Zone</u>
2202	Minnesota Central	2203	Minnesota South
2301	Mississippi East	2302	Mississippi West
2401	Missouri East	2402	Missouri Central
2403	Missouri West	2500	Montana
2501	Montana North		
2502	Montana Central	2503	Montana South
2600	Nebraska	2601	Nebraska North
2602	Nebraska South	2701	Nevada East
2702	Nevada Central	2703	Nevada West
2800	New Hampshire	2900	New Jersey
3001	New Mexico East	3002	New Mexico Central
3003	New Mexico West	3101	New York East
3102	New York Central	3103	New York West
3104	New York Long Island		
3200	North Carolina	3301	North Dakota North
3302	North Dakota South	3401	Ohio North
3402	Ohio South	3501	Oklahoma North
3502	Oklahoma South	3601	Oregon North
3602	Oregon South	3701	Pennsylvania North
3702	Pennsylvania South	3800	Rhode Island
3900	South Carolina	3901	South Carolina North
3902	South Carolina South	3701	South Carorina North
4001	South Dakota North	4002	South Dakota South
4100	Tennessee	4201	Texas North
4202	Texas North Central	4201	Texas Central
4204	Texas South Central	4205	Texas Central Texas South
4301	Utah North	4302	Utah Central
4303	Utah South	4404	Vermont
4501	Virginia North	4502	Virginia South
4601	Washington North	4502	Washington South
4701	West Virginia North	4702	West Virginia South
4801	Wisconsin North	4802	Wisconsin Central
4803	Wisconsin South	4901	Wyoming East
4902	Wyoming East Central	4901	wyoming East
4903	Wyoming West Central		
4904	Wyoming West Central Wyoming West	5001	Alaska 1
5002	Alaska 2	5001	Alaska 3
5002	Alaska 4	5005	Alaska 5
5004	Alaska 6	5007	Alaska 7
5008	Alaska 8	5007	Alaska 7 Alaska 9
5010	Alaska 10		
5102	Hawaii 2	5101 5102	Hawaii 1
5102	Hawaii 4	5103 5105	Hawaii 3 Hawaii 5
5200	Puerto Rico/Virgin	2103	nawall 3
3200	Islands		
	TBTAIIUB		

# <u>Universal Transverse Mercator</u>

Universal Transverse Mercator zones covering the Continental U.S. are 10 through 19, including Alaska and Hawaii, zones 60 and 1 through 19 must be included. The zone numbers and the associated central meridian are as follows:

<u>Zone</u>	<u>Central Meridian</u>
60	177 E (note direction)
1	177 W
2	171 W
3	165 W
4	159 W
5	153 W
6	147 W
7	141 W
8	135 W
9	129 W
10	123 W
11	117 W
12	111 W
13	105 W
14	99 W
15	93 W
16	87 W
17	81 W
18	75 W
19	69 W

Source: USGS, Snyder publications, 1989.

# Geographic or Astronomic Latitude and Longitude

Direction of Longitude is expressed as a single character, "E" or "W" to indicate direction of longitude from Greenwich. Longitude is assumed West, or "W," unless otherwise specified.

The default code for BLM GCDB Data Collection using the BLM PCCS program is  $\ensuremath{\mathsf{W}}$ .

Attribute Name: Coordinate System Units

Field Name: CRDSYS\_UNIT

Attribute Length: 1
PCCS Field Length: 1
DED Picture: A (1)

This attribute describes the format of attributes X COORDINATE and Y COORDINATE. The default code for BLM GCDB Data Collection using the BLM PCCS program is H.

#### Code Description Degree-Minutes-Seconds DddMmSS. Α Decimal Degrees Ddd.dddddd В Degree-Decimal Minute DddMm.mmmmm С Degree-Minutes-Seconds Ddd.MmSSssss (HP calculator format) G Degree-Minutes-Seconds DddMmSs.ssss (BLM PCCS format) Η U.S. Survey Feet FFFFFF.fff Ι Meters MMMMMMM.mmm J International Feet FFFFFF.fff K Unknown 7.

Attribute Name: Corner Classification

Field Name: CORCLASS\_CD

Attribute Length: 5
PCCS Field Length: 3
DED Picture: X (5)

Corner classification describes relative legal corner location. In general, a corner has one classification and may be referenced to many land parcels, but a corner may have more than one classification and be referenced to many land parcels. The corner classification determines seniority and status. Generally, corners with identical classifications have equal standing. For example, all public land survey system (PLSS) township corners on standard parallels.

A corner classification is influenced by many factors. As examples, the relative corner location in the PLSS land net, such as a section or quarter-section corner, the intent or type of survey which established the corner, such as a mineral surveyor a mineral segregation survey, the controlling aspects" of the corner, such as an amended monument or a closing corner, and the legal intent of the corner or monument, such as a reference monument or a witness corner.

For definition purposes corner classifications are divided into four groups or classes.

- 1. Class 1 Primary Corner Name
- 2. Class 2 Corner status
- 3. Class 3 Qualifying Corner Attribute
- 4. Class 4 Geopolitical Boundary Attribute

The class names are not a normal part of conventional land and cadastral surveying terminology and do not have legal significance.

The classes are a tool to define corner classifications for automation purposes.

# Class 1 - Primary Corner Name

The primary corner names are a base set of corner labels or names describing relative location. For PLSS corners these are names for corners on the base land net. Other names relate to corners of special surveys or private sector land subdivision surveys.

<u>Angle Point</u> - A point of survey where the alignment or boundary deflects from a straight line. Any break in bearing on a survey can be considered an angle point.

<u>Auxiliary Meander Corner</u> - A corner established at a suitable point or the meander line of a lake lying entirely within a quarter-section 01 on the meander line of an island falling entirely within a section and which is found to be too small to subdivide. A line is run connecting the auxiliary meander corner to a regular corner on the section boundary. (BLM 1973, paragraphs 121 and 122.) Also established where lines other than regular subdivision of section lines intersect a meander line. (BLM 1973, sample plat).

Center Quarter-Section Corner - A special case of a quarter-section corner. "To subdivide a section into quarter sections, run straight lines from established quarter-section corners to the opposite quarter-section corners. The point of intersection of the lines thus run will be the corner common to several quarter sections, or the legal center of section." (BLM 1973, paragraph 3-87). The above definition is sometimes termed the "federal center quarter-section corner" and applies to BLM cadastral surveys. In some states alternate methods of section subdivision may be used and a non-federal method center quarter-section corner determined. In some cases, such as completion surveys, it is possible for one section to appear to have more than one center quarter-section corner.

Closing Subdivision of Section Corner - "Closing corners are intended to be established where a closing line intersects a line already fixed in position. While the closing corner thereafter controls the direction of the closing line, a failure to place it at the true intersection does not alter the position of the line closed upon..." (BLM 1973, paragraph 3-73). A closing subdivision of section corner is established where a rectangular survey section subdivision line, Indian Reservation boundary, or state boundary intersects a previously fixed boundary at a point between corners.

Closing Section Corner - "Closing corners are intended to be established where a closing line intersects a line already fixed in position. While the closing corner thereafter controls the direction of the closing line, a failure to place it at the true intersection does not alter the position of the line closed upon..." (BLM 1973, paragraph 3-73). A closing section corner is established where a survey intersects a previously fixed boundary at a point between corners.

<u>Closing Corner of Townships</u> - "Closing corners are intended to be established where a closing line intersects a line already fixed in position. While the closing corner thereafter controls the

direction of the closing line, a failure to place it at the true intersection does not alter the position of the line closed upon..." (BLM 1973, paragraph 3-73). A closing corner of townships is established where a survey intersects a previously fixed boundary at a point between corners on the township boundary.

<u>Intersection Point</u> - The point of intersection to mark the intersection of one or more independently surveyed lines.

Crossing Closing Corner - A term used to describe a corner set where a township or section line intersects (crosses) the line of a surveyed mineral claim, forest homestead claim, small holding claim or the like. "A closing corner monument is not set at intersection with the line of a surveyed mineral claim, forest homestead claim, small holding claim or the like, unless required to provide an interval of monumentation of one half mile or less. In instances crossing closing corners may be needed for operational or litigation purposes, in which event they should be provided for in the special instructions." (BLM 1973, paragraph 3-71.)

<u>Electronic or Other Control Point</u> - A point which is not coincident with a legal corner but is used for coordinate computation or survey measurement control. Points in National Geodetic Reference System and BLM established control may be examples. (BLM 1973, paragraphs 2-11 and 4-19.)

<u>Location Corner</u> - A term applied to a position determined and marked by the locator (claimant) of a mineral right to distinctly and clearly define the boundaries of a mining claim on the ground. This is not the same as a Location Monument and is not an officially recognized. BLM cadastral survey corner.

Location Monument - "When a mineral survey is situated in a district where there are no corners of the public survey and no other monuments within 2 miles, a location monument is established." (BLM 1973, paragraph 10-32.) "A location monument is most frequently used as a reference for one or more mineral surveys. It may also be used in any situation where no corner of an existing survey is available to provide a satisfactory connection for an isolated special survey. The monument is generally established in a conspicuous position with good visibility from every direction. The corner of a special survey may be designated as a location monument if it meets this qualification." (BLM 1973, paragraph 4-18). This definition includes U.S. Mineral Monuments and U.S. Location Monuments.

<u>Meander Corner</u> - A meander corner is established at every p.9int where a Township line, section line, Land Grant, Homestead Entry Survey,' Donation Land Claim of other survey intersects the bank

of a navigable stream or other meanderable body of water. (BLM 1973, paragraph 3- 117.)

<u>Mile Corner or Mile Post</u> - "The mile corner of a state, Reservation or other grant boundary does not mark a point of a subdivision; it is a station along the line, however, long usage has given acceptance to the term." (BLM 1973, paragraph 5-4.)

<u>Numbered Corner</u> - A corner of BLM special survey which is assigned a number as part of the cadastral survey. Examples include corners of placer claims, corners of mineral claims, and some land grant corners. These corners are not the same as angle points.

<u>Point on Line</u> - A stake or object a surveyor has placed on a line for convenience, such as for a backsight. Points on line are set in prominent places to facilitate identification of lines. Modern BLM cadastral surveys may refer to points on line as witness Points. Points on Line may also be Line Trees.

<u>Private Survey Land Subdivision Corner</u> - A corner set by a private survey to establish the limits of a certified survey lot, a land subdivision lot, or other parcel survey. These are generally termed local corners by BLM cadastral survey.

<u>Quarter-section Corner</u> - A corner at the extremity of a boundary of a PLSS quarter-section, not including the section corner. Written as 1/4 not one fourth.

<u>Section Corner</u> - A corner at the extremity of a PLSS section boundary.

<u>Special Meander Corner</u> - A corner established at: 1 the intersection of a surveyed subdivision of section line and a meander line of a body of water or an island; 2) the intersection of a computed center line of a section and a meander line of an island over 50 acres in area which is located entirely within a section. (BLM 1973, paragraphs 3- 121 and 3-122.

<u>Special Purpose Monument</u> - Special purpose monuments are set or designated when other designations are not available. These are decided case-by-case and application-by-application. Currently there are two special purpose monuments recognized by BLM and both are in Colorado.

<u>Subdivision of Section Corner</u> - The BLM 1973 Manual distinguishes between one sixteenth section subdivision corners and minor subdivision corners, which are 1/64 and smaller subdivision corners. This difference is recognized, but for the purposes of definition a subdivision corner is any corner which defines a one

sixteenth or smaller division of a section and is not a section, quarter-section, or center quarter-section corner. In some cases, subdivision corners may be corners of government lots, however, all corners of government lots mayor may not be section subdivision corners.

<u>Township Corner</u> - A corner at the extremity of a PLSS township boundary. Normally a PLSS township has four township corners does not include section, quarter-section or section subdivision corners which are on a PLSS township boundary.

<u>Witness Point</u> - "A witness point is a monumented station on a line of the survey that is used to perpetuate an important location more or less remote from and without special relation to any regular corner." (BLM 1973, paragraph 4-17).

# Class 2 - Corner Status

The corner status classification is combined with the primary corner names to describe additional information. This class does not occur as a stand alone description of a corner classification.

<u>Amended Monument</u> - There are two primary applications of amended monuments stated in the BLM Manual of Instruction. In general a monument whose position no longer marks the true position for the corner. The monument is marked A.M.

"If it is known that a mineral survey, homestead entry, small holding claim, right of way, reservoir, or other survey has been connected with a corner of an exterior subject to rectification, the fact is stated in the special instruction. In such a case the marks **A.M.** (signifying amended monument) are added to the original corner monument and the old corner is connected by course and distance to the new." (BLM 1973, paragraph 3-36.)

"A recovered closing corner not actually located on the line that was closed upon will determine the direction of the closing line, but not its legal terminus. The correct position is at the true point of intersection of the two lines. The new monument in those cases where it is required will always be placed at the true point of intersection. An off-line monument in those cases where a new monument is required will be marked A.M. (for amended monument) and will be connected by course and distance." (BLM 1973, paragraphs 5-41 and 8-16(6).)

Local Monument or Corner - A BLM term for a private sector or non-BLM monument or corner. "... local points of control have all the authority and significance of an identified original corner, once they are accepted." (BLM Instruction Memorandum 86-31, BLM Policy)

<u>Reference Monument</u> - "A reference monument is an accessory and is employed in situations where the site of a corner is such that a regular permanent monument cannot be established or where the monument would be liable to destruction, and bearing trees or a nearby bearing object are not available." (BLM 1973, paragraph 4-16.)

<u>Witness Corner</u> - A witness corner is a monumented point usually on a line of a survey and near a corner. It is established only in situations where it is impracticable to occupy the site of a corner. Usually only one witness corner is established, and it should be located upon one of the lines leading to a corner if a secure place within a distance of 10 chains is available. If there is no place to be found on a surveyed line within that

distance, a witness corner may be located in any direction within a distance of 5 chains. (BLM 1973, paragraph 4-15.) Class 3 - Qualifying Corner Attributes

The qualifying attributes are not needed to uniquely describe a corner classification and may not be part of a conventional cadastral corner description. These are included for automation purposes to support particular attribute requirements of users of the cadastral data.

On a Standard Line - "In the survey of the principal meridian and other standard lines (base lines, standard parallels, and guide meridians), two independent sets of measurements are made, but only the mean of the two measurements is shown in the final field notes.' (BLM 1973, paragraph 3-9.

"A principal meridian is intended to conform to the true meridian, extending north or south or both directions, from the initial point as conditions require." (BLM 1973, paragraph 3-8.)

"The base line is extended east and west from the initial point on a true parallel of latitude." (BLM 1973, paragraph 3-10.)

"Standard parallels, which in earlier years were also called correction lines, are extended east and west from the principal meridian, at intervals of 24 miles north and south of the base line, in a manner prescribed for the survey of the base line." (BLM 1973, paragraph 3-12.)

Guide meridians are extended north from the base line or standard parallels at intervals of 24 miles east and west from the principal meridian, in the manner prescribed for running the principal meridian and terminate at the point of their intersection with the standard parallels. (BLM 1973, paragraph 3-14.)

On Township Boundary - A PLSS township is a nominally six mile by six mile area of land bounded by two township lines running eastwest and two range lines running north-south. A fractional township may be bounded by an irregular survey line, a grant boundary, an Indian Reservation or other line which causes the configuration of the township to deviate significantly from the nominal dimensions. The south and east boundaries are normally the governing lines of the subdivision. (BLM 1973, paragraphs 3-17 through 3-46.)

On section Boundary - A PLSS section is a nominally one mile by one mile area of land bounded by section lines running east-west and north-south. A fractional section may be bounded by an irregular survey line, a grant boundary, an Indian reservation or

other line which causes the configuration of the section to deviate significantly from the nominal dimensions. (BLM 1973, paragraphs 3-17 through 3-46.)

## Class 4 - Geopolitical Boundary Attributes

The geopolitical boundary attributes are not needed to uniquely describe a corner classification and may not be part of a conventional cadastral corner description. These are included for automation purposes to support particular attribute requirements of users of the cadastral data.

 $\underline{\text{On state Boundary}}$  - A corner which defines the limits of a state boundary.

On County Boundary - A corner which defines the limits of a county boundary.

Corner classifications are coded into a 5 character attribute. Each position in the code relates to one of the corner classifications.

Positions	1-2	Primary Corner Name
Position	3	Corner status
Position	4	Qualifying Corner Attribute
Position	5	Geopolitical Boundary Attribute

The codes for corner classification are as follows:

## <u>Positions 1-2</u> <u>Primary Corner Name</u>

0.0	No Primary Corner Name
01	Angle Point
02	Auxiliary Meander Corner
03	Center Quarter-Section Corner
04	Closing Subdivision of Section Corner
05	Closing Section Corner
06	Closing Corner of Townships
07	Intersection Point
08	Crossing Closing Corner
09	Electronic or Other Control Point
10	Location Corner
11	Location Monument
12	Meander Corner
13	Mile Corner or Mile Post
14	Numbered Corner
15	Point on Line
16	Private Survey Land Subdivision Corner
17	Quarter-Section Corner
18	Section Corner
19	Special Meander Corner
20	Special Purpose Monument
21	Subdivision of Section Corner
22	Township Corner
23	Witness Point

Position 3	<u>Corner Status</u>
0 A B C D	No Corner Status Amended Monument Local Monument or Corner Reference Monument Witness Corner

Position 4	Qualifying Corner Attributes
0	No Qualifying Corner Attributes
A	On Standard Line
В	On Township Line
C	On section Line

# Position 5 Geopolitical Boundary Attributes No Geopolitical Boundary Attributes

A On state Line
B On County Line

Users should refer to the official BLM record for corner descriptions and should not rely on this data for legal land surveys

Some examples of the application of the code are: an amended angle point would have a code of O1AOO; a closing section corner on a township boundary would have a code of O5OBO; if the closing section corner on the township boundary was amended, the amended corner would be coded O5ABO. All corners on a state boundary would end in A. Points on a state line are also, by definition, on a county line. Similarly, all points on a standard line would be on a township boundary and all points on a township boundary would be on a section line.

Attribute Name: Corner Monument Cap Material

Field Name: CAPMAT

Attribute Length: 1
PCCS Field Length:

**DED Picture:** 9(1)

The material from which the monument cap is constructed. Examples are aluminum, brass, iron, and stainless steel.

Code	Description
1	Aluminum
2	Brass
3	Iron
4	Stainless Steel
5	Other Alloy
Z	Unknown

Attribute Name: Corner Monument Cap Size

Field Name: CAPSIZE

Attribute Length: 4
PCCS Field Length:

**DED Picture:** 9(3)V9

Corner monument cap diameter expressed in inches. An example is 4.5.

Attribute Name: Corner Monument Condition

Field Name: MONCOND CD

Attribute Length: 1
PCCS Field Length:

DED Picture: A (1)

This attribute describes corner monument condition during last visit or recovery. The codes for monument condition (Scruggs, 1988) are as follows:

#### Code Description Α Found - Excellent condition Found - Good condition, some reference marks В or ties moved, destroyed or not found С Found - Fair condition, cap marred but usable D Found Poor condition, Corner Monument should be replaced, but still usable $\mathbf{E}$ Found - Replaced Unusable Corner Monument, destroyed or moved Not found after reasonable search G Η Not Found - Obliterated - Replaced I Not Found - Obliterated - not Replaced New Corner Monument J K No search for Corner Monument L Corner Monument never set Μ Not Found - Lost - not Replaced Not Found - Lost - Replaced Ν Unknown Z

Obliterated - a corner at whose point there are no remaining traces of the monument, or its accessories, but whose location has been perpetuated, or the point for which may be recovered beyond reasonable doubt, by the acts of testimony of the interested landowners, competent surveyors, or other qualified local authorities, or witnesses or by some other acceptable evidence of record. (BLM Glossary, 1980, page 37).

Lost - a corner whose position cannot be determined, beyond reasonable doubt, either from traces of the original marks or from acceptable evidence or testimony that bears on the original position, and whose location can be restored only by reference to one or more independent corners. (BLM Glossary, 1980, page 31).

Attribute Name: Corner Monument Height

Field Name: HEIGHT

Attribute Length: 3
PCCS Field Length:

**DED Picture:** 9(3)

The distance of the monument top is above or below the ground. Negative values indicate a recessed or buried monument, such as those set in road ways below the traveled surface. This attribute is expressed in whole inches.

Attribute Name: Corner Monument Magnetic Properties

Field Name: MAG

Attribute Length: 1
PCCS Field Length:

DED Picture: A (1)

Corner monument magnetic properties i.e., can monument be detected with metal detector, does it have a magnet in the cap?

The NGS Blue Book standards for the codes for this attribute are as follows:

M-CODE - used to indicate the magnetic property of the mark or monument.

- A steel rod adjacent to monument
- B bar magnet imbedded in monument
- H bar magnet set in drill hole
- I marker is a steel rod
- M marker equipped with bar magnet
- N no magnetic material
- 0 other
- P marker is a steel pipe
- R steel rod imbedded in monument
- S steel spike imbedded in monument
- T steel spike adjacent to monument

Attribute Name: Corner Monument Set Method

Field Name: SET

Attribute Length: 5
PCCS Field Length:

**DED Picture:** X (5)

The method used to set the monument. Examples are in a mound of stones, driven flush to the ground, set in concrete, etc.

Users should refer to the official BLK record for corner descriptions and should not rely on this data for legal land surveys.

The NGS Blue Book standards for the codes for this attribute are included for cross reference purposes and are as follows:

## SETTING CODE

DEFAULT STABILITY CODE

	SHALLOW SETTINGS (LESS THAN 10 FT DEEP)	
00 -	setting not listed - see description	D
	unspecified shallow	D
	driven into the ground	D
	imbedded in the ground	D
	surrounded by a mass of concrete	D
	set into the top of an irregular mass of concrete	D
	set into the top of a round concrete monument	С
08 -	set into the top of a square concrete monument	
	set into the top of a prefabricated concrete post	С
09 -	imbedded in the ground	D
	surrounded by a mass of concrete	D
	imbedded in a mass of concrete	_
	set into a prefabricated concrete block	С
12 _	imbedded in the ground	D
	surrounded by a mass of concrete	D
	imbedded in a mass of concrete	C
	a metal rod driven into the ground	D
	with base plate buried/screwed into the ground set	_
	into the top-of a metal pipe	D
17 -	driven into the ground	D
	imbedded in the ground	D
	surrounded by a mass of concrete	D
	imbedded in a mass of concrete	
	set in concrete at the center of a clay tile pipe	С
21 -	fastened to a wooden pile driven into marsh	D
22 -	imbedded in the ground	D
23 -	surrounded by a mass of concrete	D
24 -	imbedded in a mass of concrete	С

SETTINGS IN STRUCTURES	
30 - light structures (other than listed below)	Ε
31 - pavements (street, sidewalk, curb, apron, etc.)	Γ
32 - retaining walls, etc concrete ledge	C
33 - piles and poles (e.g. spike in utility pole)	Γ
34 - footings/foundation walls of small/medium structures	C
35 - mat foundations, etc concrete slab	C
36 - massive structures (other than listed below)	E
37 - massive retaining walls	E
38 - abutments and piers of large bridges	Е
39 - tunnels	E
40 - massive structures with deep foundations	P
41 - large structures with foundations on bedrock	A
UNSLEEVED DEEP SETTINGS (10 FT.+)	
45 - unspecified depth	C
46 - copper-clad steel rod	Е
47 - galvanized steel pipe	E
48 - galvanized steel rod	E
49 - stainless steel rod	E
50 - aluminum alloy rod	E
SLEEVED DEEP SETTINGS (10 FT. +)	E
55 - unspecified pipe/rod in sleeve	E
56 - copper-clad steel rod in sleeve	P
57 - galvanized steel pipe in sleeve	A
58 - galvanized steel rod in sleeve	A
59 - stainless steel rod in sleeve	A
60 - aluminum alloy rod in sleeve	<i>P</i>
SETTINGS IN ROCKS OR BOULDERS	_
65 - unspecified rock	E
66 - in rock outcrop	A
67 - set into a drill hole in rock outcrop	A
68 and marked by a chiseled cross	A
69 and marked by a chiseled triangle	<i>P</i>
70 and marked by a chiseled circle	A
71 and marked by a chiseled square	<i>P</i>
73 - in a rock ledge	A
74 - set into a drill hole in a rock ledge	P
75 at the intersection of two chiseled lines	A
76 and marked by a chiseled triangle	A
77 and marked by a chiseled circle	A
78 and marked by a chiseled square	A
80 - in a boulder	
81 - set into a drill hole in a boulder	-
82 and marked by a chiseled cross	-
83 and marked by a chiseled triangle	C
84 and marked by a chiseled circle	
85 and marked by a chiseled square	
87 - in a partially exposed boulder	
88 - set into a drill hole in a partially exposed boulder	(
AND MARKED DV A CHISELED CROSS	(

90 -	and marked by a chiseled triangle	
91 -	and marked by a chiseled circle	
92 -	and marked by a chiseled square	
93 –	in bedrock	I
94 -	set in a drill hole in bedrock	
	set into a mass of concrete	I
95 -	in a depression in rock outcrop	I
96 -	in a depression in a rock ledge	I
97 -	in a depression in a boulder	
98 -	in a depression in a partially exposed boulder	(
99 –	in a depression in the bedrock	I

**STABILITY CODE** - may be entered to override the default codes listed above.

- A monuments of the most reliable nature which are expected to hold their elevations very well.
- B monuments which probably hold their elevations well.
- C monuments which may hold their elevations, but which are commonly subject to surface ground movements.
- D monuments of questionable or known reliability.

Attribute Name: Corner Monument Post Length

Field Name: POSTLONG

Attribute Length: 3
PCCS Field Length:

**DED Picture:** 9(3)

Length of the monument post. The length of the monument post is expressed in inches. An example is 60, which would be 60 inches.

Attribute Name: Corner Monument Post Material

Field Name: POSTMAT

Attribute Length:

PCCS Field Length:

**DED Picture:** 9(1)

The material from which the monument post is constructed. Examples are aluminum, brass, iron, and stainless steel.

<u>Code</u>	<u>Description</u>
1 2 3 4 5	Aluminum Brass Iron Stainless Steel Other Alloy
Z	Unknown

Attribute Name: Corner Monument Post Size

Field Name: POSTSIZE

Attribute Length: 5
PCCS Field Length:

**DED Picture:** 9(5)

The corner monument post diameter is expressed in inches. For example 4 would be 4 inches diameter. Historical monuments were often rectangular posts, in these cases the post size is described as a dimension of width by depth, separated by a small "x" and expressed in inches. For example, a sandstone post may be 3x6 which would be 3 inches wide by 6 inches deep. The length is stored in the attribute CORNER MONUMENT POST LENGTH.

Attribute Name: Corner Monument Record Identifier

Field Name: CMRID

Attribute Length: 7
PCCS Field Length:

**DED Picture:** 9(7)

This attribute is a key for a physical database and was developed in previous physical database prototype efforts. It is included since it may be used in the future to link to these efforts.

A corner monument record is a document indicating visitation recovery or use information for a corner monument. Some states require private surveyors to file a written record of the establishment or restoration of a corner monument under corner perpetuation acts.

Attribute Name: Corner Monument Type Identifier

Field Name: MONTYPE\_ID

Attribute Length: PCCS Field Length:

**DED Picture:** 9(1)

This attribute is a key for a physical database and was developed in previous physical data base prototype efforts. It is included since it may be used in the future to link to these efforts.

The corner monument type describes the material, composition and "set" or "placed" conditions of the corner monument.

Attribute Name: Corner Number

Field Name: CORNO

Attribute Length: 3
PCCS Field Length: 3
DED Picture: X(3)

Corner number refers to the serial number assigned to corners on original survey documents. For example, a mineral survey may have four corners, each of which is numbered on the mineral plat, a mile corner or a mile post may have a specified mile distance associated with it. This attribute may also contain a number or value associated with mile corners or mile posts.

This attribute should only be populated it the plat or original document indicates a corner number.

Attribute Name: Corner Object

Field Name: OBJECT

Attribute Length: 20

PCCS Field Length:

DED Picture: X (20)

In some cases corner monuments are objects, which cannot be easily described by the dimensions. Examples include trenches, urns, fire pit, or other objects foreign to the natural environment. This attribute is a description of those objects.

Attribute Name: Curve Length

Field Name: Curve\_Length

Attribute Length: 10

PCCS Field Length:

**DED Picture:** 9(10)

Curve length is the nominal distance around a curve. It equals the difference between the stationing of the T.C. (Tangent to Curve) or B.C. (Beginning of Curve) or P.C. (Point of Curvature) and the C.T. (Curve to Tangent) or E.C. (End of Curve) or P.T. (Point of Tangency).

Also known as the arc distance of the curve.

Gibson and Meyer, 1980, Route Surveying, page 20.

Attribute Name: Curve Type

Field Name: Curve\_Type

Attribute Length: 1
PCCS Field Length:

DED Picture: A (1)

A code describing the type of curve.

<u>Code</u>	<u>Description</u>
А	Circular - Arc Definition
С	Circular - Chord Definition
S	Spiral
P	Parabolic

Attribute Name: Date Set

Field Name: SETDATE

Attribute Length: 11

PCCS Field Length:

DED Picture: X (11)

This is a general format for the date a corner monument was set.

<u>Code</u> <u>Description</u>

DD-Mmm-YYYY Eleven digit date code

DD Day (01 - 31) if unknown use 00

Mmm Month, Three letter abbreviation

for example Jan, Feb, Mar, Apr

YYYY Four digit Year

Attribute Name: Degree

Field Name: Curve\_Degree

Attribute Length: 9

PCCS Field Length:

**DED Picture:** 9(9)

The degree of \_curve defines the radius of a highway or railroad circular curve. There are two definitions: 1) (chord) the angle subtended at the center of a circle by a chord of 100 feet. 2) (arc) The angle subtended at the center of a circle by an arc of 100 feet. Definition 1) was used in railroad and early highway design. Definition 2) is used in present-day engineering of highway design.

ACSM, 1978, <u>Definitions of Surveying Terms</u>, page 47.

Attribute Name: Digitized Point Identifier

Field Name: DID

Attribute Length: 7
PCCS Field Length:

**DED Picture:** 9(7)

This attribute is a key for a physical database and was developed in previous physical data base prototype efforts. It is included since it may be used in the future to link to these efforts.

This attribute is a system assigned identifier for a coordinate value from a digitized source.

Attribute Name: Direction

Field Name: DIR

Attribute Length: 9
PCCS Field Length: 7
DED Picture: 9(9)

This attribute is the value for a direction.

"Direction is the angle between a line and an arbitrary chosen reference line. When the reference line is north or south and the angle is designated east or west, the direction is called the bearing. When the reference line is north or south the direction is called azimuth. (ACSM, 1978, Definition of Surveying Terms, page 55).

The BLM PCCS program uses only bearings and does not accept azimuths. Therefore, for the BLM PCCS programs, only bearings are accepted as directions.

The BLM PCCS program format for direction is DdMmSs.

Attribute Name: Direction of Concavity

Field Name: DOC

Attribute Length: 3
PCCS Field Length:

**DED Picture:** 9(2) V9

The direction of concavity as defined by the compass points for each  $22\ 1/2$  degree increment. For example, SSW means concave to the south by southwest. This direction is generally perpendicular to the long chord.

Attribute Name: Direction Parameter

Field Name: DIR\_PARM

Attribute Length: 11

PCCS Field Length:

**DED Picture:** 9(11)

This attribute defines the observation quality of a direction. If it is a statistical measure and is within a 68% confidence level, it is defined (ACSM, 1978, <u>Definition of Surveying Terms</u>, page 65) as "an indication of the precision of the arithmetic mean of a series of measurements. It equals the standard deviation of a single measurement (quantity) divided by the square root of the number of measurements."

Standard error of a direction is based on the magnitude of the random errors associated with the direction observation. If the direction is the result of a series of pointings, then standard error propagation computations are done to determine the final direction standard error.

This value is normally used as a weighing criteria in a full least squares adjustment but may also be used to assess relative quality of observations within a single adjustment area.

Attribute Name: Direction Quadrant

Field Name: DIRQUAD CD

Attribute Length: 12

PCCS Field Length:

DED Picture: 9(1)

Bearing is an acute angle reference to either north or south. If a direction is not a bearing, then the acute angle definition does not hold and the direction quadrant is not applicable. If the direction quadrant code 0, the direction is an azimuth.

<u>Code</u>	<u>Description</u>
0	None - Azimuth
1	North East
2	South East
3	South West
4	North West

The BLM PCCS program does not accept azimuths and must have code 1, 2, 3, or 4 entered for every bearing.

Attribute Name: Direction Units

Field Name: DIRUNIT\_CD

Attribute Length: 1
PCCS Field Length: 1
DED Picture: A (1)

This attribute indicates the unit basis for directions. The default code for BLM GCDB Data Collection using the BLM PCCS program is A.

<u>Code</u>	Descripti	<u>on</u>	
A B	Degree-Minutes-Seconds DdMmSs. (PCCS format) Decimal Degrees Ddd.ddddddd		
C	Degree-Decimal Minute DddMm.mmmmm		
D	Grads	Ggg.ggggggg	
E	Radians	R.rrrrrrrr	
F	Mils	Mmm . mmmmmmmm	
G	Degree-Mi	nutes-Seconds Ddd.MmSSssss (HP calculator format)	
H	Degree-Mi	nutes-Seconds DddMmSs.ssss	
Z	Unnown		

Attribute Name: Distance

Field Name: DIST

Attribute Length: 10 PCCS Field Length: 6

**DED Picture:** 9(7)V3

Distance is the linear measure along a line.

The BLM PCCS program format for distance is DD.ddd.

Attribute Name: Distance Parameter

Field Name: DIST PARM

Attribute Length: 10 PCCS Field Lengthy:

**DED Picture:** 9(10)

This attribute defines the observation quality of a distance. If it is a statistical measure and is within a 68% confidence level it is defined (ACSM, 1978, <u>Definition of Surviving Terms</u>, page 65) as "an indication of the precision of the arithmetic mean of a series of measurements. It equals the standard deviation of a single measurement (quantity) divided by the square root of the number of measurements."

Standard error of a distance is based on the magnitude of the random errors associated with the distance determination. If the distance is the result of a series of measurements then standard error propagation computations are carried forward to determine the final distance standard error.

This value is normally used as a weighing criteria in a full least squares adjustment but may also be used to assess relative quality of observations within a single adjustment area.

Attribute Name: Distance Units

Field Name: DISTUNIT\_CD

Attribute Length: 1
PCCS Field Length: 1
DED Picture: A (1)

This attribute defines the units of measure and reference plane upon which distance measurements are taken. The default code for BLM GCDB Data Collection using the BLM PCCS program is A.

#### <u>Code</u> <u>Description</u> Chains - Ground Α U.S. Survey Feet - Ground В International Feet - Ground C D Meters - Ground Chains - Sea Level (geodetic) Ε U.S. Survey Feet - Sea Level (geodetic) F International Feet - Sea Level (geodetic) G Meters - Sea Level (geodetic) Η Chains - Grid Ι J U.S. Survey Feet - Grid K International Feet - Grid Meters - Grid L Vara - Mexico definition - Ground M Ν Pole - Ground 0 Arpent - Ground Ρ Perch - Ground Q Rod - Ground Stick - Ground R Vara - California definition - Ground S Vara - Texas definition - Ground Т Z Unknown

Attribute Name: Division 1

Field Name: DIV\_1

Attribute Length: 15

PCCS Field Length:

**DED Picture:** X (15)

The division 1 attribute in land unit contains the first division of a parent land unit. This attribute contains the identifier for the division 1. Examples of the names for division 1 are as follows.

## Parent Land Unit Division 1

Indian Allotment Parcel
Tract Block or Lot
Mineral Survey Lode or Lot
Mineral Claim Lode or Lot
Townsite Block or Lot
Government Lot Lot
Grant Tract

US Survey Lot or Parcel ANSCA 14 (c) Block or Lot

Small Holding Claim Lot

Attribute Name: Division 2

Field Name: DIV 2

Attribute Length: 15

PCCS Field Length:

**DED Picture:** X (15)

The division 2 attribute is the second division of a parent land unit. If the division 2 attribute is populated, then the division 1 attribute must be populated.

Attribute Name: Division 3

Field Name: DIV\_3

Attribute Length: 15

PCCS Field Length:

**DED Picture:** X (15)

The division 3 attribute is the third division of a parent land unit. If the division 3 attribute is populated, then the division 2 and division 1 attributes must be populated.

Attribute Name: Division 4

Field Name: DIV\_4

Attribute Length: 15

PCCS Field Length:

**DED Picture:** X (15)

The division 4 attribute is the fourth division of a parent land unit. If the division 4 attribute is populated, then the division 3, division 2 and division 1 attributes must be populated.

Attribute Name: Document Index

Field Name: DOCINDEX

Attribute Length: 80

PCCS Field Length:

DED Picture: X (80)

This attribute describes any index values used by a source agency to locate a source document. Examples include volume-page indices common in county records, plat name, cadastral survey group number, such as group 563 or any other index value required to describe to the source agency where documents can be examined or the construction of the documents explained.

Attribute Name: Document Survey Standards

Field Name: DOC\_SUR\_STAND

Attribute Length: 5
PCCS Field Length:

**DED Picture:** X (5)

This attribute describes the standards under which a document was prepared. For example, a control survey may be performed and recorded according to FGCC first order standards, a survey may be done under one part in three thousand closure standards, or a survey in the private sector may be done to meet American Land Title Association survey standards.

An example of this field is if a survey has a linear error of closure of one part in 5000, this attribute would contain 5000. Alternatively, future use of this attribute may include developing a code for this attribute.

Attribute Name: Document Type

Field Name: DOCTYPE\_CD

Attribute Length: 2
PCCS Field Length: 2
DED Picture: X (2)

Document type describes a family of maps or documents conforming generally to the same specifications or having some common unifying characteristic. The two digit code below is based as much as possible on existing ALMRS DED elements for map series codes.

<u>Code</u>	Description
10 11 12 13 14 15 16 17 18 19 20	15 minute quadrangle 7 1/2 minute series (1:24,000) 30 minute series 1 degree series County series (1:100,000) 7 1/2 minute by 15 minute series Intermediate 1:100,000 Regional series 6 minute (1:24,000) series Intermediate 1:50,000 series Government Survey Plat
21 22	Forest Service 7 1/2 minute quadrangle BLM Protraction Diagram
23	FS Grid Diagrams
30	Private sector Survey Plat or map, recorded
31	Private sector Survey Plat or map, unrecorded
32	Deed or conveyance instrument
33	Aerial Photograph
34	Ortho-photograph
35	Non-photogrammetric image
40	Government Control Survey
41	Private Sector Control Survey
50	Adjustment or computation file
60 70	GS Orthoquad 7 1/2 minute series
70	Digital Line Graph "(DLG) 1:24,000
71	Digital Line Graph (DLG) 1:62,500
72	Digital Line Graph (DLG) 1:25,000
73	Digital Line Graph (DLG) 1:48,000
Z	Unknown

Attribute Name: Edition

Field Name: EDCODE

Attribute Length: 1
PCCS Field Length: 1
DED Picture: A (1)

The edition code for document types related to USGS maps and edition or status for other document types.

<u>Code</u>	<u>Description</u>
A	Interim
В	Final
C	Preliminary
D	Provisional
E	Intermediate
F	Recorded
G	Unrecorded

Attribute Name: Elevation

Field Name: Z

Attribute Length: 9

PCCS Field Length: 8 and 9
DED Picture: 9(6)V999

"The vertical distance from a datum, generally mean sea level, to a point or object on the earth's surface. The terms 'elevation' and 'altitude' are sometimes used synonymously, but in modern surveying practice the term 'elevation' is preferred to indicate heights on the earth's surface, whereas 'altitude' is used to indicate the heights of points in space ..." (ACSM, 1978, Definition of Surveying Terms, page 59). Elevation may be above or below (+/-) the vertical datum.

The vertical datum for the BLM GCDB Data Collection is assumed to be National Geodetic Vertical Datum of 1929 (NGVD, 1929). The elevation units are not part of the definition. Elevations below the datum are preceded by a "-" sign.

Altitude may be used to describe a solar easement or a condominium right. In this case the use of altitude is synonymous with elevation because it is a measurable value and is part of a right which can be conveyed.

The format for the BLM PCCS program is EEEEE.eee, which is a field length of 9.

This attribute follows the form and format of ALMRS DED element 0431.

Attribute Name: Elevation Adjustment Parameter

Field Name: Z\_ADJ\_PARM

Attribute Length: 9
PCCS Field Length:

**DED Picture:** 9(9)

This attribute defines the positional quality of an elevation value in the Z or height direction. If it is a statistical measure and is within a 68% confidence interval defined (ACSM, 1978, <u>Definition of Surveying Terms</u>, page 65) as "an indication of the precision of the arithmetic mean of a series of measurements. It equals the standard deviation of a single measurement (quantity) divided by the square root of the number of measurements."

The standard error of a bench mark (a point of known elevation) describes accuracy. It is computed as:

Standard Error Z =

Standard deviation of unit weight \*
square root (Covariance matrix Z term diagonal element)

The adjustment parameter units are derived from the units of elevation.

Attribute Name: Elevation Adjustment Parameter Type

Field Name: Z\_ADJ\_PARM\_CD

Attribute Length: 1

PCCS Field Length:

DED Picture: A (1)

This attribute describes how the values for the attribute ELEVATION ADJUSTMENT PARAMETER are derived.

# <u>Code</u> <u>Description</u>

- A Standard Error 68% confidence interval (one sigma)
- B Standard Error 95% confidence interval (two sigma)
- C Misclosure between survey observation data and control data
- D Average Radial
- Z Unknown

Attribute Name: Elevation Datum

Field Name: ZDATUM\_CD

Attribute Length: 1
PCCS Field Length: 1
DED Picture: A (1)

This attribute defines the vertical datum for the elevation value. It is the reference surface for elevation. The default value for the BLM GCDB Data Collection using the BLM PCCS program is code A.

# Code Description A National Geodetic Vertical Datum of 1929 (NGVD29) B North American Vertical Datum of 1988 (NAVD88) Z Unknown

Attribute Name: Elevation Determination Process

Field Name: Z\_PROC\_CD

Attribute Length: 2
PCCS Field Length: 2
DED Picture: X(2)

This attribute defines the method of capture or procedure used for establishing elevation. The default code for BLM GCDB Data Collection using the BLM PCCS program is 31.

#### <u>Code</u> <u>Description</u>

- 10 Field Survey, specific computation methodology unknown
- 11 Global Positioning system, NGS ADJUST reduction software
- 12 Global Positioning System, Magnovox reduction software
- 13 Field Survey, Unadjusted
- 15 Inertial Surveying System, BLM reduction software
- 16 Doppler Satellite Positioning, GEODOP III or IV reduction software
- 17 Global Positioning System, specific reduction software unknown
- 18 Photogrammetric positioning or adjustment procedures
- 19 Photo-image zoom transfer, Colorado State Office
- 20 Coordinate Transformation method unknown
- 21 Coordinate Transformation Average Shift
- 22 Coordinate Transformation Leftii
- 23 Coordinate Transformation 2 D Affine
- 24 Coordinate Transformation 3 D Affine
- 25 Coordinate Transformation 2 D Conformal
- 26 Coordinate Transformation 3 D Conformal
- 27 Coordinate Transformation NGS, NADCON software
- 30 Computed and Adjusted, specific method unknown
- 31 BLM PCCS Program
- 34 Least Squares Adjustment or Analysis, fully constrained
- 35 Least Squares Adjustment or Analysis, minimally constrained
- 36 BLM Maine Measurement Management Program or GTHING
- 37 BLM Alaska AHDS Computation
- 38 CRUSP Coordinate Geometry, BLM Eastern States.
- 40 Digitized (table or tablet), unknown methods
- 41 Digitized (table or tablet) BLM MCI\PCCS Methods
- 42 Digitized (table or tablet) FS Methods
- 43 Scanned or optically captured, specific method unknown
- 44 Scaled or manually measured
- 45 Digitized (table or tablet), BLM ADS Methods
- 50 BLM Protraction Diagram Elevation Values
- 62 Digital Line Graph (USGS)
- 63 Accepted existing elevation values. Elevation process unknown.
- 62 Average project area elevation
- 64 Average statewide elevation
- 65 Average PLSS township elevation
- 66 National Geodetic Reference System as supplied by the NGS
- 7. Unknown

Attribute Name: Elevation Source Identifier

Field Name: ZID

Attribute Length: 7
PCCS Field Length:

**DED Picture:** 9(7)

This attribute is a key for a physical database and was developed in previous physical database prototyping efforts. It is included since it may be used in the future to link to these efforts.

The elevation source is a description of the source documents which contain elevation observations.

Attribute Name: Elevation Unit

Field Name: ZUNIT\_CD

Attribute Length: 1
PCCS Field Length: 1
DED Picture: A (1)

The units of elevation. The default code for BLM GCDB Data Collection using the BLM PCCS program is F.

<u>Code</u>	<u>Description</u>
F T	U.S. Survey Feet International Feet
M	Meters

Attribute Name: Feature Name

Field Name: FEATURE

Attribute Length: 240

PCCS Field Length:

DED Picture: X (240)

This attribute describes the physical characteristics or feature of a line. Examples include river bank, traveled way edge, right-of-way boundary, lake shore, possession line, occupation line, or title line.

Attribute Name: Field Note Survey Type

Field Name: SURPROC\_CD

Attribute Length: 1
PCCS Field Length: 1
DBD Picture: A (1)

This attribute describes the method or procedure used to determine the measurement value for a line. This name conforms to requirements specified by Micrographics at the Service Center.

# <u>Code</u> <u>Description</u>

- A <u>Location Survey</u> The establishment on the ground of points and lines which have previously been determined by computation, or by graphical methods, or by description obtained from deeds and maps or other records (BLM Glossary, 1980, page 87).
- B <u>Retracement Survey</u> A survey made to ascertain the direction and length of lines and to identify monuments and other marks of an established prior survey Recovered corners are rehabilitated but lost corners are not restored and lines through timber are not reblazed (BLM 1973, paragraph 6-7).
- C <u>Corrective Resurvey</u> A resurvey made to correct erroneous omission of original corner evidence discovered after a survey has been approved.
- Dependent Resurvey A retracement and reestablishment of the lines of the original survey in their true original positions according to the best available evidence of the positions of the original corners (BLM 1973, paragraph 6-4).
- E <u>Acquired Lands Survey</u> Federal lands acquired by purchase, condemnation, exchange, or gift under laws other than public land laws. May also be called reacquired lands. The survey of acquired or reacquired land may be subject to state and other local laws.
- F Omitted Lands Survey "The survey of lands exposed by changes in water level or accredit subsequent to survey are not erroneously omitted lands. This title is applied to lands, not shown on the plat of original survey, which were excluded from the survey by some gross discrepancy in the location of the meander line. The unsurveyed land typically lies between the actual bank of a lake, stream, or tide water and the record meander line." (BLM 1973, paragraph 7-77).

- I <u>Independent Resurvey</u> An independent resurvey is an establishment of new section lines, and often new township lines independent of and without reference to the corners of the original survey. In an independent resurvey it is necessary to preserve the boundaries of those lands patented by legal subdivisions of sections of the original survey which are not identical with the corresponding legal subdivisions of the section of the independent resurvey (BLM 1973, paragraph 6-5).
- J Other Procedures not described in other codes.
- K <u>Supplemental Plat</u> A supplemental plat is prepared entirely from office records and is designed to show a revised subdivision of one or more sections without change in the section boundaries and without other modification of the subsisting record (BLM 1973, paragraph 9-65).
- M <u>International Boundary Survey or Resurvey</u> A surveyor resurvey of a boundary of the United States with another foreign sovereign.
- N <u>No Survey Plat, Map only</u> In areas where protraction diagrams or survey plats do not exist, a value for a measurement for a line may be described by an unofficial map or other document. These are not legally based measurements.
- Original Survey A cadastral survey which creates, marks and defines boundaries of tracts of land for the first time, generally applies to surveys of the Public Land Survey System.
- P Protraction Diagram A diagram representing the plan for the extension of the rectangular system over unsurveyed public lands, based upon computed values for the corner positions. (BLM 1973, paragraph 2-14) only BLM approved protraction diagrams are official government records.
- Q <u>Exchange Survey</u> A cadastral survey of lands to be exchanged. An exchange is a transaction whereby the U.S. Government receives land in exchange for other land and or timber. State exchanges, Private exchanges and Taylor Act exchanges (section 8 of the Taylor Grazing Act, June 28, 1934) are included. See also public law 94-579, section 206.
- R <u>Segregation Survey</u> defined by running survey lines on the ground which separate appropriated lands from public lands.

Z <u>Unknown</u> - Field Note Survey Type is unknown.

Attribute Name: Field Note Survey Status

Field Name: SUR\_STAT\_CD

Attribute Length 1
PCCS Field Length: 1
DED Picture: A (1)

This attribute describes the BLM Cadastral Survey document status. These status codes may apply to only part of a document. Names and codes conform to requirements specified by Micrographics at the service Center.

#### <u>Code</u> <u>Description</u>

- A Approved or Accepted An approved or accepted surveyor resurvey has the field notes approved and the plat accepted by the BLM official who has been delegated the authority for such action (BLM Glossary, 1980, page 4). Field notes and plats become official records when they are filed in an appropriate land office.
- B Unapproved A cadastral survey which has not, for whatever reason, reached the status of an accepted survey (BLM Glossary, 1980, page 60).
- Cancellation The annulment of a formerly accepted survey. This action may be taken only by the Director of the BLM or an appointed representative, usually the chief of the branch or division of cadastral surveys. This action applies to public lands and requires ample justification such as showing gross irregularities. This action applies only to public lands and has no bearing on the identification of the alienated subdivisions described in terms of the prior survey (BLM Glossary, 1980, page 9).
- D Suspended Survey When question or doubt arises concerning an approved or accepted surveyor resurvey, all actions related to the area covered may be held in abeyance until the matter is resolved. The survey may be corrected, reinstated, or canceled either in whole or in part, but no action based on the plat may be initiated or completed while the survey is suspended (BLM Glossary, 1980, page 55). The result of this action may be called a suspended plat.
- E Pending A BLM cadastral survey which has: completed special instructions, a group file, funding allocation, and survey crews in the field, but the survey has not been completed and is not approved (New Mexico state Office Definition, September, 1990). This term is normally found on the BLM Master Title Plat.

# Z Unknown

Attribute Name: Geological Survey Quadrangle Map Identifier

Field Name: QID or QUAD\_ID

Attribute Length: 7
PCCS Field Length: 7
DED Picture: 9(7)

This attribute is a key for a physical database and was developed in previous physical database prototyping efforts. It is included since it may be used in the future to link to these efforts.

It is used to uniquely identify exactly which edition and which copy of a map was used for data collection. It is necessary because the USGS map identifier, the Map Reference Code, is not unique.

Attribute Name: Government Lot

Field Name: GOV\_LOT

Attribute Length: 3
PCCS Field Length: 3
DED Picture: X (3)

A government lot is a part of the Public Land Survey System.

A government lot is a subdivision of a section which is not designated as an aliquot part of a section, but which is denoted by a number, for example lot 2. A government lot may be regular or irregular in shape and its acreage varies from that of regular section subdivisions. (BLM Glossary, 1980, page 31). In some cases government lots may have letter designations. In LLD data there are government lots that do not have a number or a letter designation (unnumbered lot).

Attribute Name: Government Lot Division

Field Name: GOV\_LOT\_DIV

Attribute Length: 1

PCCS Field Length:

DED Picture: X (1)

A GOVERNMENT LOT DIVISION is an alpha-numeric value for a division of a government lot such as 1 or 2 or N or S or E or W.

Attribute Name: Grid Number

Field Name: GRIDNO

Attribute Length: 6
PCCS Field Length: 6
DED Picture: 9(6)

This attribute is the six digit the BLM PCCS program point or corner identifier. There are extensive standards and recommended procedures for using this attribute which are described in the BLM PCCS program user and reference manuals. The basic form of GRID NUMBER is:

#### XxxYyy All 6 digits are integers

- X Number of full section lines east from the west township boundary, an integer from 1 to 7. The west township boundary points are 1 and the east boundary points are 7.
- Y Number of full section lines north of the south township boundary, an integer from 1 to 7. The south township boundary points are 1 and the north boundary points are 7.
- xx Nominal chains east of the west section boundary. For example, in most cases the south quarter corner is 40.
- yy Nominal chains north of the south section boundary. For example, in most cases the east quarter corner is 40.

The southwest township corner, usually coincident with the southwest corner of section 31 is the origin and is labeled "100100." Some examples of other corners are as follows:

SE corner - section 31 "200100" NW corner - section 31 "100200" center quarter of section 10 "440540" Attribute Name: Hike Time

Field Name: HIKE\_CD

Attribute Length: 1
PCCS Field Length:

DED Picture: A (1)

This attribute describes the accessibility of a corner for conventional or satellite surveying purposes. The code is for hiking from a point of closest approach. The point of closest approach is reached by the vehicle specified in attribute TRANSPORTATION. Hike times are an estimate and are based on a moderate walking rate with a 40 pound pack.

Access Code	<u>Description</u>
A	No Hike
В	Short Hike, up to 20 minutes
С	Moderate Hike, 20 to 40 minutes
D	Long Hike, over 40 minutes
Z	unknown

Attribute Name: Horizontal Datum

Field Name: HDATUM\_CD

Attribute Length: 1
PCCS Field Length: 1
DED Picture: A (1)

A datum is "any numerical or geometrical quantity or set of quantities which may serve as a reference or base for other quantities" (ACSM, 1978, <u>Definition of Surviving Terms</u>, page 49). In measurement science datum consists of a reference spheroid and a set of equations or relations to develop a coordinate system. Local or assumed datums are usually tangent plane based and defined with respect to one of the formalized datums.

<u>Code</u>	<u>Description</u>
A B C D E	NAD 27 WGS 72 NAD 83 WGS 84 LOCAL
Z	unknown

NAD - North American Datum WGS - World Geodetic System

The default code for BLM GCDB Data Collection using the BLM PCCS program is A.

Attribute Name: Land Grant Name

Field Name: LAND\_GRANT

Attribute Length: 5
PCCS Field Lengths: 5
DED Picture: X (5)

5-Digit numeric representation of land grant name for each state. This attribute conforms to DED 0485. This data element is constructed as follows:

GEO-ST PIC 9(2) - SEE DE 3147

GRANT NO PIC 9(3)

The grant no will appear in more than one state but will be unique when preceded by geo-st code. Explanation line will contain alpha representation. APPLICATION 9602 - Field note reference system uses a 6 position code. To identify land grant name. The codes listed in this data element are expanded to include an additional zero after the state value. For example the code 04001 in de-0485 is 040001 in the field note nlndgrnt table. The nlndgrnt table has been used to validate survey data since 1969. Appendix B contains the valid Land Grant Names and their codes.

PRIMARY APPLICATION OTHER APPLICATIONS USING THIS ELEMENT 9601 2002 9602 9691

Land grants will be collected according to the ALMRS DED element 0485 definition using a five digit number. Collecting Land Grant Numbers alleviates the need for land unit name for land grants.

Attribute Name: Land Unit Identifier

Field Name: LAND\_UNIT\_ID

Attribute Length: 7
PCCS Field Length:

**DED Picture:** 9(7)

This attribute is a key for a physical database and was developed in previous physical database prototyping efforts. It is included since it may be used in the future to link to these efforts.

A land unit is a Public Land Survey System parcel.

Attribute Name: Land Unit Name

Field Name: LANDNAME

Attribute Length: 40
PCCS Field Length: 40
DED Picture: X (40)

This attribute is the name of a land unit or parcel and follows the form and format of ALMRS DED element 2906. Land unit names MUST be the same for all segments of a single land unit. An example would be a segment of a meander that crosses sections, townships, and states such as a river. The land unit name must be the same to recognize the meander is one contiguous land unit. When entering the land unit name, enter the most significant portion of the land unit name followed by a comma then additional qualifying descriptors. Examples are "RIO GRANDE, LEFT BANK," "RIO GRANDE, RIGHT BANK," or "RIO GRANDE, ISLAND." Additional qualifiers can be added by using additional commas.

The BLM GCDB Data Collection is not collecting current or historical mining districts. Since the mining districts shifted over time, there are mining claims and mineral surveys with the same Land Unit Number. To be able to differentiate between two mining claims or mineral surveys with the same Land Unit Number, the Land Unit Name needs to be collected. The Land Unit Name will equal the parcel name (e.g., LODE A) or the claimants name (e.g., SMITH, JOHN).

For mineral surveys with multiple named surveyed areas (e.g., LODE A, LODE B, LODE C, etc) each area will be collected with the same mineral survey number and different Land Unit Names (e.g., MS123 LODE A, MS123 LODE B, MS123 LODE C, etc).

Attribute Name: Land Unit Number

Field Name: LANDNO

Attribute Length: 7
PCCS Field Length: 7
DID Picture: X (7)

This attribute is the land unit or parcel number and/or letter assigned to an area of land as the result of a survey and follows the form and format of ALMRS DED element 3118. The number is used in conjunction with Land unit Type. It identifies areas, as examples, tract numbers, homestead entry surveys and townsite survey numbers.

For native allotments in Alaska the Case Serial Number will be collected according to DED element 2554.

Land grants will be collected according to the ALMRS DED element 0485 definition using a five digit number. Collecting Land Grant Numbers alleviates the need for land unit name for land grants.

Attribute Name: Land Unit Type

Field Name: LANDTYPE\_CD

Attribute Length: 2
PCCS Field Length: 2
DED Picture: 9(2)

This attribute describes land unit types. A land unit type is a category of a parcel of land.

# <u>Code</u> <u>Description</u>

- 01 <u>Rectangular Survey</u> Includes the basic land net of townships, sections, and aliquot parts. It also includes all government lots.
- O2 <u>Coal Survey</u> Coal lands are surveyed public lands chiefly valuable for their deposits of coal. These surveys generally have a number associated with them.
- Farm Unit Survey Bureau of Reclamation survey, done under BLM authority and accepted by the BLM. A survey done to delineate irrigable farm lands within Bureau of Reclamation project areas. "Wherever it may be necessary, for the purpose of accurate description, to further subdivide lands to be irrigated under the provisions of said reclamation law, the Secretary of the Interior may cause subdivision surveys to be made by the officers of the Bureau of Reclamation." Title 43, CFR 434.
- O5 <u>Land Grant</u> Grants are lands to which title has been confirmed or conferred to the U.S. for a particular reason or purpose. For example, private land grants are areas of land to which title was conferred by a predecessor government and confirmed by the U.S. Government after the territory in which it is situated was acquired by the U.S.
- Homestead Entry Survey A Homestead Entry is an entry under the U.S. land laws for the purpose of acquiring title to a portion of the public domain under the Homestead Laws. A Homestead Entry Survey is a metes and bounds survey entered under the Act of June 11, 1906 as amended.
- 07 <u>Indian Allotment</u> An allocation of a parcel of public lands or Indian Reservation lands to an Indian for his or her individual use. Applies to the lower forty-eight states. Many Indian Allotments were surveyed, but there is no written record.

- O8 <u>Small Holding Claim</u> A small holding claim entry is an entry in connection with which the entry man and his or her predecessors of interest maintained continuous, adverse, actual, bona fide possession of public lands for at least 20 years prior to cadastral survey of the lands involved. Acts of March 3, 1891 and June 15, 1922 as amended.
- O9 Small Tract Survey A small tract is a parcel of the public lands of 5 acres or less which has been found chiefly valuable for lease as a home, recreation, business or a community site under the act of June 1, 1938. Does not include Small Tract Act survey, code 21.
- 10 <u>Townsite</u> A townsite is an area of public lands which has been segregated for disposal as an urban development, often subdivided into blocks which are further subdivided into lots. A townsite survey is a survey of street and lot boundaries executed to segregate from public lands and area of land qualifying under the townsite laws.
- 11 <u>O and C Lands</u> Public lands in Western Oregon which were granted to the Oregon Central Railroad companies to aid in the construction of railroads but which were later forfeited and returned to the federal government by congressional revestment of title. An O and C Homestead entry is an entry not exceeding 160 acres on revested Oregon and California Railroad company lands which are agricultural in nature. O and C Homestead Entry lands are coded 06.
- Mineral Survey A survey of a lode claim, placer claim, or mill site with all its notes and plats. This type of survey is executed by a U.S. Mineral Surveyor for the purposes of marking the legal boundaries of mining claims on the public domain.
- 13 <u>Donation Land Claim</u> The land, 320 or 640 acres that was allocated to an Oregon settler under the Donation Act September 27, 1850.
- 14 <u>United states Survey</u> (AK) A metes and bounds survey executed to comply with one of various regulations for entry of public lands.
- Native Allotment Application (AK) Under the terms and provisions of the Act of May 17, 1906 as amended the Secretary of Interior is authorized to allot, not to exceed 160 acres, of vacant, unappropriated, and unreserved non-mineral lands in Alaska. An allotment will not be made until the lands are surveyed by the BLM and until proof of 5 years continuous use and occupancy by the applicant has been approved by the Director of the BLM.

- 17 Tract Generally a metes and bounds survey of an area at large within a Township. The term is also defined as a parcel of land that lies in more than one section or that cannot be identified as completely part of one section. The tract numbers begin with the next highest number of the numerical designation in a township or in Alaska may begin with a letter designation. If a tract falls in two townships, it is given a separate number in each township.
- 18 <u>ANCSA 14 (c) village</u> Alaskan Native Claims Settlement Act Section 14 (c)
- 19 <u>ANCSA 14 (h) historical site</u> Alaskan Native Claims Settlement Act, Section 14 (h)
- Mining Claim A parcel of land, probably containing valuable mineral in the soil or rock and appropriated by an individual according to established rules by the process of "location." Located by the claimant, not surveyed.
- Small Tracts Act Survey A parcel of land surveyed under BLM authority and defined by the small tracts acts, Public Law 97- 465, January 12, 1983. It applies to parcels within the National Forest System which may be sold, exchanged, or interchanged. The acreage of the parcels may be: (1) 40 acres or less when interspersed with adjacent lands not in federal ownership, (2) 10 acres or less when encroached upon by color of title improvements, or (3) Rights of way, reserved or acquired, which are no longer needed by the federal government and are surrounded by lands not owned by the federal government.
- 30 <u>Hydrography</u> Boundary of a body of water, which mayor may not have an associated flow. The boundary separating uplands from lowlands.
- 32 <u>Tidal Lands</u> Riparian survey where the tidal influence appears. Occurs only on ocean fronts and as far up the water bodies as the tidal influence occurs.
- 34 <u>Military Reservation</u> Federal lands which have been dedicated for military purposes.
- 35 <u>National Park or Monument</u> A reservation embracing memorials of national interest or objects of historical and scientific interest which are administered by the National Park Service.
- 36 <u>Coos Bay Wagon Road Lands</u> Public lands in western Oregon which were granted to the State of Oregon to aid in the

- construction of the Coos Bay Military Wagon Road, but which were later forfeited and returned to the Federal Government by reconveyance. (BLM Glossary, 1980, page 12).
- Rights-of-Wax Any strip or area of land, including surface, overhead, or underground, granted by deed or easement, for construction and maintenance according to designated use, such as for drainage and irrigation canals and ditches: electric power, telegraph, and telephone lines: gas, oil, water, and other pipelines: highways, railroads, and other roads, including right of portage: sewers: flowage or impoundment of surface water: and tunnels. ACSM, 1978, Definitions of Surveying Terms, page 141.
- 59 <u>State</u> "This element provides names, abbreviations and codes representing the 50 states and the District of Columbia, and the outlying areas, all of which are to be considered 'first order subdivisions' of the United states" (FIPS PUB 5-1, page 3).
- 60 <u>County, Borough, or Parish</u> "A county is a local unit of government, usually the seat of a deed registry or its equivalent. Counties are considered to be the "first order subdivisions" of each state regardless of their local designation" (FIPS PUB 6-3, page 5).
- 90 Private Lands Lands not in federal control.
- 99 <u>Unknown</u>

Attribute Name: Long Chord Bearing

Field Name: LCB

Attribute Length: 9
PCCS Field Length:

**DED Picture:** 9(9)

The long chord is a straight line connecting the beginning points of curvature and the ending points of curvature. The long chord direction is the azimuth or bearing of this line.

Attribute Name: Long Chord Distance

Field Name: LC

Attribute Length: 9
PCCS Field Length:

**DED Picture:** 9(9)

The long chord is a straight line connecting the beginning points of curvature and the ending points of curvature. The long chord distance is the length of this line.

Attribute Name: Manufacturer

Field Name: MANUFACT

Attribute Length: 20

PCCS Field Length:

DED Picture: X (20)

The monument manufacturer. In some cases a BLM standard monument is ordered from a particular manufacturer. This is the manufacturer's name.

Attribute Name: Map Reference Code

Field Name: MRC

Attribute Length: 8
PCCS Field Length:

DED Picture: X (8)

The MRC is an eight character field which describes the 7 1/2 minute quadrangle location. The code gives the latitude and longitude of the southeast corner of a one degree by one degree area. An alpha-numeric code describes a 7 1/2 minute square block within that area, indexed from the Southeast corner. Letters A through H indicate north tier and numbers 1 through 8 indicate an east tier. For example, the 7 1/2 minute quadrangle whose southeast corner is 34 degrees 30 minutes latitude and 105 degrees 22 1/2 minutes longitude has an MRC of 34105-E4.

Attribute Name: Maximum Difference

Field Name: RELY

Attribute Length: 7
PCCS Field Length: 7
DED Picture: 9(7)

This attribute is computed by the BLK PCCS program and is the difference in feet between the coordinate value for a control point as computed by survey measurements and the reported coordinate value for the control point. All points in the survey are assigned the same maximum difference. This value is used as numeric indicator of the survey coordinate reliability, but is not an indication of the relative quality or misclosure of the survey traverse. The units are survey feet for the BLM PCCS program.

Attribute Name: Media

Field Name: MEDIA\_CD

Attribute Length: 1
PCCS Field Length:

Ζ

Unknown

DED pictures A (1)

The media describes the material upon which a map or document is printed or stored. Historically this has been hard copy media, but recent technology requires that digital media be included.

## <u>Code</u> <u>Media</u> C Compact Disk or Optical Disk D Computer disk Electronic transmission E F Microfilm or other emulsion based film product L Linen K Mylar 0 Paper-old folded Ρ Paper R Parchment Т Computer tape Χ Fax Transmission

Attribute Name: PLSS Township Identifier

Field Name: TID

Attribute Length: 7
PCCS Field Length:

**DED Picture:** 9(7)

This attribute is a system assigned identifier for PLSS Township Each record in this entity is assigned a unique TID. All possible Townships can be assigned a unique TID.

PLSS Township is an area of land within the Public Land Survey System. It is nominally six miles on a side containing 36 sections.

It is possible that the PLSS Township system has been extended into Land Grants and other non-public domain areas. It is also possible for non-public domain states and areas to have numbered township systems.

Attribute Name: Point Identifier

Field Name: GS\_PT\_NO

Attribute Length: 32

PCCS Field Length:

DED Picture: X (32)

This attribute is from the draft USGS - BLM Point Identifier standards. It is described in the data element dictionary, element 5745, Point Identifier. The collection of this attribute is defined in detail in the "Collection of PLSS Data for the Bureau of Land Management's Geographic Coordinate Data Base via the Automated Digitizing System METHODS AND PROCEDURES" manual by Troy D. Bunch, SC 326, dated January 1990.

Attribute Name: Point Representation

Field Name: PTREP\_CD

Attribute Length: 1
PCCS Field Length:

DED Picture: X (1)

This attribute describes the representation of a corner on a map, photograph or image. For example, a pavement centerline, a red cross or red line. These are map or image symbols and are not the same as the corner marker or the corner physical representation.

<u>Code</u>	Description
A B	solid - solid line intersection dashed - solid line intersection
С	dashed - dashed line intersection
D	heavy cross
E	light cross
F	X mark
G	Parallel lines Centerline - solid line intersection
H	Parallel lines Centerline - dashed line intersection
I	Parallel lines Centerline - Parallel lines
	Centerline intersection
J	Panelled cross
K	Panelled X
L	Panelled T
M	Black box with dot in center (mile post on Indian boundary)
N	Solid line - dot dash line intersection
0	Dashed line - dot dash line intersection
P	Dot dash - dot dash line intersection
Z	Unknown

These are examples of codes. However, the Geological Survey does have some symbology codes imbedded in the Digital Line Graph (DLG) codes, which may be added.

The codes described here are not intended to indicate what the map symbol represented. They are descriptions of the symbology itself. A separate look-up table may be developed to relate the symbology to the physical objects.

Attribute Name: Principal Meridian

Field Name: MER\_CD

Attribute Length: 2
PCCS Field Length: 2
DED Picture: X (2)

A meridian is a vertical circle containing the poles having the same longitude at every point. In the PLSS a Principal Meridian is a vertical circle passing through the initial point, which serves as a north-south reference line, and is generally paired with a base line. The PLSS Principal Meridians and their ALMRS DED element 1703, reference codes are listed below.

Note that some codes exist for lines which are not defined by BLM Cadastral Survey as PRINCIPAL MERIDIANS. This attribute follows the coding and definitions developed by ALMRS.

<u>Code</u>	<u>Description</u>
01 02 03 04 46 05 06 36 07 08 09 10 11 12 42 13 14 15 16 17 44 18 19 20 21 37 22 23 38 35 39 40	1st 2nd 3rd 4th 4th extended 5th 6th Between Miamis Black Hills Boise Chicksaw Choctaw Cimmarron Copper River Ellicotts Line Fairbanks Gila-Salt River Humboldt Huntsville Indian Kateel River Louisiana Michigan Montana Mount Diablo Muskingham River Navajo New Mexico Ohio River Base Ohio River Survey Scioto River 1 Scioto River 2

Code	Description
41	Scioto River 3
24	St. Helena
25	St. Stevens
26	Salt Lake
27	San Bernardino
28	Seward
29	Tallahassee
43	Twelve Miles
45	Umiat
30	Unitah
48	US Military Survey
31	Ute
32	Washington
47	West of Miamis
33	Willamette
34	Wind River
91	Connecticut West Reserve in Ohio
92	Ohio County Purchase
93	Virginia Military Survey in Ohio
99	Not a Public Land Survey Area
CT	Connecticut
DE	Delaware
GA	Georgia
KY	Kentucky
MA	Massachusetts
MD	Maryland
ME	Maine
NC	North Carolina
NH	New Hampshire
NJ	New Jersey
NY	New York
ОН	Ohio
PA	Pennsylvania
RI	Rhode Island
SC	South Carolina
$\mathtt{TN}$	Tennessee
TX	Texas
VA	Virginia
VT	Vermont
WV	West Virginia

Attribute Name: Published Document Name

Field Name: PUBNAME

Attribute Length: 35

PCCS Field Length:

**DED Picture:** X (35)

The name of a document as printed on or published with the document. This attribute follows the form and format of ALMRS DED element 3111.

Attribute Name: QFile Record Type

Field Name: QREC\_CD

Attribute Length: 1
PCCS Field Length: 1
DED Picture: 9(1)

Indicates the generalized type or category for a BLM PCCS program point identifier (GRIDNO) is associated with in the BLM PCCS O File.

## Code Description

- 1 Header and Default information about attributes and values in the remainder of the Qfile and in all other BLM PCCS files from the township.
- 2 Lists of PCCS corner identifiers (GRIDNO) and their aliases. Describes which corners have multiple BLM PCCS corner identifiers (GRIDNOs).
- 3 Corners which describe the basic land net and section geometry. Formerly S and R records.
- 4 Corners which describe parcels or non-rectangular and units in the Public Land Survey. Formerly N records.

Attribute Name: Quad Number

Field Name: QUADNO

Attribute Length: 7
PCCS Field Length:

**DED Picture:** 9(7)

QUADNO is the physical implementation of the attribute MAP REFERENCE CODE. This code was developed because the Prime operating system, Primos, does not accept file names, which begin with a number.

This attribute is identical to MAP REFERENCE CODE except the final two positions describing the specific 7 1/2 minute area are listed first and the hyphen is not included.

Attribute Name: Radius

Field Name: Curve\_Radius

Attribute Length: 9 PCCS Field Length:

**DED Picture:** 9(9)

The radius of a circular curve is the distance from either the point of tangency or the point of curvature, measured along the perpendicular, to the curve center. The radius of a spiral is continually changing. Often abbreviated as R. Radius on BLM Survey plats should be expressed in U.S. Survey Feet.

Gibson and Meyer, 1978, Route Surveying, pages 15-18.

Attribute Name: Range

Field Name: RANGE

Attribute Length: 5
PCCS Field Length: 4
DED Picture: X (5)

A range is any series of a north-south column of townships. Ranges are numbered consecutively east and west from a principal Meridian.

When combined with TOWNSHIP, it uniquely identifies an area of land within one base line/Principal Meridian system. This attribute follows the ALMRS DED element 1699 coding and format standards.

<u>Code</u>	<u>Description</u>
OOOXY	Range Code
000	Whole Range Number, right justified with leading zeros
X	Fractional Range designation * 1 - 1/4 Range 2 - 1/2 Range 3 - 3/4 Range 0 - not a fractional Range
Y	Direction from Principal Meridian (E or W)

\* In modern practice, sections in excess of 120 chains are avoided by creation of half-township or half-range numbers. This cannot be done where elongated sections are situated in the interior of a township as the result of partially completed but grossly irregular former subdivisions (BLM 1973, paragraph 3-83).

A rectangular land unit is a division of the PLSS rectangular survey.

Attribute Name: Reference Code

Field Name: LSRID

Attribute Length: 7
PCCS Field Length: 7
DED Picture: 9(7)

This attribute points to and identifies the source document which contains the bearing and distance or measurement values for a line. This is generally a BLM plat, survey, or protraction diagram, but could also be a deed, private plat, or conveyance instrument.

Attribute Name: Reference Meridian

Field Name: REFMER\_CD

Attribute Length: 1
PCCS Field Length: 1
DED Picture: A (1)

The reference meridian defines the direction or bearing basis for observations. The default code for BLM GCDB Data Collection using the BLM PCCS program is I. Mean bearing codes are referenced to the point of reference of the line, generally the line midpoint. All other reference meridians are to the point of origin of the line.

## <u>Code</u> Description

- A Geodetic, from North
- B Geodetic, from South
- C Grid, from North
- D Grid, from South
- E Astronomic, (true) from North
- F Astronomic, (true) from South
- G Magnetic North
- H Assumed
- I Astronomic (true) mean bearing from North or South
- K Reference Meridian of another line in a survey.
- Z Unknown

Users should refer to the official BLM record for corner descriptions and should not rely on this data for legal land surveys.

Attribute Name: Reliability Code

Field Name: RELY

Attribute Length: 1 PCCS Field Length:

DED Picture: 9(1)

This attribute is currently being used in Oregon BLM GCDB Data Collection and is in addition to the two BLM GCDB Data Collection reliability indicator attributes agreed upon by the Interagency Workgroup.

This definition for reliability has been developed by the Oregon state Office in conjunction with the Geological Survey and Forest Service in Oregon.

This attribute will contain the value for a computed coordinate or a control point. The code values are based on the maximum misclosure of a survey as computed by the BLM PCCS The codes for computed coordinate values are as program. follows:

<u>Code</u>	<u>Description</u>
1 2	1 foot or less
_	5 1000 01 1000
3	10 feet or less
4	40 feet or less (USGS solid lines)
5	100 feet or less (USGS dashed lines)
6	200 feet or less (USGS dashed lines)
7	over 200 feet (USGS do not show)
8	possibly fraudulent

For control points the codes are as follows:

## Code <u>Description</u> First order (FGCC) 1 2 Second and third order (FGCC) Photogrammetric pass point of bridge point 3 Cadastral survey ties, some county ties Digitized from $\frac{1}{7}$ 1/2 minute quadrangles, and 4 other survey ties 5

Digitized from 15 1/2 minute quadrangles

Attribute Name: Reliability Remarks

Field Name: RELYREMARKS

Attribute Length: 7
PCCS Field Length: 4
DED Picture: 9(7)

This attribute contains additional information not covered in other reliability attributes which pertain directly to the reliability of the data from which a corner position is computed. These are generally subjective information based on a surveyors or other person's intuition about a positional reliability. It is the perceived reliability expressed as a number in units of survey feet.

Attribute Name: Remarks

Field Name: REMARKS

Attribute Length: 240
PCCS Field Length: 240
DED Picture: X (240)

This attribute contains additional information not covered in other attributes. It may be possible to incorporate some of the remarks into attributes, if the same category of remarks occurs commonly.

Attribute Name: Scale

Field Name: SCALE\_CD

Attribute Length: 2
PCCS Field Length:

DED Picture: X (2)

This attribute describes the relationship between a distance on a map or image and the corresponding distance on the earth. This attribute follows the coding of DED element 2612.

<u>Code</u>	<u>Scale</u>
10 12 14 15 20 21 24 25 30 31 40 48 50 62 63 70 71 72 80 81 82 85 86 89 91 92 93 94 95 96 97 98 99	1:10,000 1:12,000 1:14,000 1:15,000 1:20,000 1:21,120 1:24,000 1:25,000 1:30,000 1:31,680 1:40,000 1:48,000 1:50,000 1:62,500 1:62,500 1:63,360 1:100,000 1:125,000 1:250,000 1:250,000 1:250,000 1:250,000 1:300,000 1:750,000 1:750,000 1:750,000 1:1,250,000 1:1,250,000 1:1,250,000 1:1,500,000 1:1,500,000 1:2,000,000 1:2,500,000 1:3,750,000 1:3,750,000 1:5,000,000 1:7,500,000 1:7,500,000 1:7,500,000 1:7,500,000 1:7,500,000 1:7,500,000 1:7,500,000

Unknown

Ζ

Attribute Name: Section

Field Name: SECTION

Attribute Length: 3
PCCS Field Length: 3
DED Picture: X (3)

A section is a major subdivision of a (PLSS) Township, normally an eight sided polygon (eight sided because a section is normally monumented every half mile). Sections are nominally one mile by one mile in size, containing 640 acres. They are usually numbered from 1 to 36, but may contain letters.

This attribute is the section number, an integer or value, alpha code. Format and form follows the ALMRS DED element 2506.

Attribute Name: Source Document Agency

Field Name: AGENCY\_CD

Attribute Length: 6
PCCS Field Length: 6
DED Picture: X(6)

The agency which provided the source document or materials to the data collection effort. The codes are listed in Appendix A. In the maps data files this is the source agency for the map document. In control files this is the source of the coordinate value.

The codes in appendix A are standard codes developed by NGS. The county codes are from ALMRS DED element 0002.

Attribute Name: Source Document Date

Field Name: DOCDATE

Attribute Length: 11
PCCS Field Length: 11
DED Picture: X (11)

The general format for SOURCE DOCUMENT DATE is as follows:

<u>Code</u> <u>Description</u>

DD-Mmm-YYYY Eleven digit date code

DD Day (01 - 31) if unknown use 00

Mmm Month, three letter abbreviation for example

Jan, Feb, Mar

YYYY Four digit Year

Attribute Name: Source Identifier

Field Name: SourceID

Attribute Length: 7
PCCS Field Lengths:

**DED Picture:** 9(7)

This attribute is a key for a logical database and was developed in database design efforts. It is included since it may be used in the future to link to these efforts.

It describes a single source document, record, or tile.

Attribute Name: State

Field Name: STATE\_CD

Attribute Length: 2
PCCS Field Length: 2
DED Picture: A (2)

"This element provides names, abbreviations and codes representing the 50 states and the District of Columbia, and the outlying areas, all of which are to be considered 'first order subdivisions' of the united states" (FIPS PUB 5-1, page 3). A two letter abbreviation is used for state. Washington DC is included in the abbreviations. This attribute follows the coding developed by ALMRS DED element 0002.

Alaska Arizona Arkansas California Colorado Connecticut	AL AZ AR CA CO CT DE
Arizona Arkansas California Colorado Connecticut	AZ AR CA CO CT DE DC
Arkansas California Colorado Connecticut	AR CA CO CT DE DC
California Colorado Connecticut	CA CO CT DE DC
Colorado Connecticut	CO CT DE DC
Connecticut	CT DE DC
	DE DC
	DC
	FL
	GΑ
	ΗI
	ID
	IL
	IN
	ΙA
	KS
<u> </u>	ΚY
	LA
	ME
2	MD
	MA
5 - 5	MΙ
	MN
<u> </u>	MS
	MO
	MΤ
	NE
	NV
<u> </u>	NH
2	NJ
	NM
	NY
	NC
	ND
Ohio	OH

<u>Description</u>	<u>Code</u>
Oklahoma Oregon	OK OR
Pennsylvania	PA
Rhode Island	RI
South Carolina	SC
South Dakota	SD
Tennessee	$\mathtt{TN}$
Texas	TX
Utah	UT
Vermont	VT
Virginia	VA
Washington	WA
West Virginia	WV
Wisconsin	WI
Wyoming	WY

Attribute Name: Station Name

Field Name: STID

Attribute Length: 45

PCCS Field Length:

**DED Picture:** X (45)

This attribute is the control station name. It may be the NGS QIDQSN number, the name on the cap, or a BLM assigned control station name.

Attribute Name: String Identifier

Field Name: String\_ID

Attribute Length: 7
PCCS Field Length:

**DED Picture:** 9(7)

This attribute is a key for a logical database and was developed in database design efforts. It is included since it may be used in the future to link to these efforts.

This attribute describes a set of points collected to form a single line such as those collected by stream or continuous digitizing.

Attribute Name: Surveyor

Field Name: SURNAME

Attribute Length: 30
PCCS Field Length: 30
DED Picture: X (30)

SURVEYOR is the last name and first and middle initials of the person whose name appears on the source documents. The name is entered as:

Lastname, FM Where Lastname is the surveyor's last name, F is the first initial and M is the middle

initial.

The name should appear in the attribute as it occurs on the source documents.

Attribute Name: System Data Entry Date

Field Name: ENTRYDATE

Attribute Length: 11 PCCS Field Length: 4

X (11) DED Picture:

This is a general format for the date the information entered the system. The coding is as follows.

Description <u>Code</u>

DD-Mmm-YYYY Eleven digit date code

Day (01 - 31) if unknown use 00DD

> Month, Three letter abbreviation for example Jan, Feb, Mar Mmm

Four Digit Year YYYY

Attribute Name: System Data Entry Person

Field Name: WHOENTRY

Attribute Length: 30

PCCS Field Length:

**DED Picture:** X (30)

This attribute defines who entered data into the system. It does not necessarily describe who generated the data initially.

It may identify a private contractor by individual, firm or corporate name. Any existing standard for identifying contractor by name is adopted in this attribute.

In the case of individuals, employment numbers, or names may be used. Identifying departments may be included in a name code combination. Attribute Name: TIC Mark Number

Field Name: TIC

Attribute Length: 6
PCCS Field Length:

**DED Picture:** 9(6)

This attribute is a number assigned to a digitized point on the source document. TIC numbers 1 through 16 are the digitized control points used by the BLM PCCS MCI program to compute the transformation parameters for the digitizing processes for a quadrangle map. TIC numbers 20 and above are assigned in the order of the digitizing process and are labeled on the source document.

Attribute Name: Township

Field Name: TIER

Attribute Length: 5
PCCS Field Length: 4
DED Picture: X (5)

In the Public Land Survey System (PLSS) Township refers to a unit of land or to a tier north or south of a base line.

This attribute defines the use of township as a tier designation. Combined with RANGE, it uniquely identifies an area of land within one base line/principal Meridian system. This attribute follows the ALMRS DED element 1695 coding and format standards.

<u>Code</u>	<u>Description</u>
OOOXY	Township coda
000	Whole Township Number, right justified, with leading zeros.
X	Fractional Township designation * 1 - 1/4 Township ** 2 - 1/2 Township 3 - 3/4 Township ** 0 - not a fractional Township
Y	Direction from Base line (N or S)

- \* In modern practice, sections in excess of 120 chains are avoided by creation of half-township or half-range numbers. This can not be done where elongated sections are situated in the interior of a township as the result of partially completed but
- \*\*BLM Cadastral Survey does not recognize 1/4 and 3/4 Townships

grossly irregular former subdivisions (BLM 1973, paragraph 3-83).

Attribute Name: Transportation

Field Name: TRANS\_CD

Attribute Length: 1
PCCS Field Length:

**DED Picture:** A (1)

This code describes the type of transportation required to get to the point of closest approach from which the HIKE TIME attribute applies.

The NGS Blue Book codes for Transportation are as follows:

TRANSPORTATION CODE - used to indicate the mode of transportation used or to be used) to reach the station or to reach the location where packing begins, if packing to the station site is required.

- A light airplane
- B boat
- C car (or station wagon)
- F float airplane
- H helicopter
- 0 other
- P light truck (pickup, carryall, etc.)
- T truck (larger than 3/4 ton)
- W tracked vehicle (Weasel, Snowcat, etc.)
- X four-wheel drive vehicle
- D dirigible

Attribute Name: Use

Field Name: USE

Attribute Length: 1
PCCS Field Length:

DED Picture: 9(1)

This attribute indicates whether the control point values were used in a survey adjustment process.

<u>Code</u>	Description
0	Not used
1	Used

Attribute Name: X Adjustment Parameter

Field Name: X\_ADJ\_PARM

Attribute Length: 10

PCCS Field Length:

**DED Picture:** 9(10)

This attribute defines the positional quality of an X or Longitude coordinate value. If it is a statistical measure and is within a 68% confidence level defined (ACSK, 1978, <u>Definition of Surveying Terms</u>, page 65) as "an indication of the precision of the arithmetic mean of a series of measurements. It equals the standard deviation of a single measurement (quantity) divided by the square root of the number of measurements."

Standard error of a single point is computed from the covariance matrix (Q) as a result of a least squares adjustment of a survey. It is computed as:

Standard Error X=

Standard deviation of unit weight \*
square root (Covariance matrix X term diagonal element)

Attribute Name: X Adjustment Parameter Type

Field Name: ADJ\_PARM\_CD

Attribute Length: 1
PCCS Field Length:

DED Picture: A (1)

This attribute describes how the values for  ${\tt X}$  ADJUSTMENT PARAMETER are derived.

<u>Code</u>	<u>Description</u>
A	standard Error 68% confidence interval (one sigma)
В	standard Error 95% confidence interval (two sigma)
С	Distance of misclosure between survey observations and control
D	Average Radial Distance
E	Oregon Reliability Code
Z	Unknown

Attribute Name: X Coordinate Value

Field Name: X

Attribute Length: 13

PCCS Field Length: 11 and 13

DED Picture: 9(13)

This is the X position value for a coordinate pair. It may be expressed in any coordinate system specified in the attribute Coordinate System. The major coordinate value systems are geodetic or latitude/longitude, State Plane and Universal Transverse Mercator.

## 1) Longitude -

Longitude is generally defined as "the angle between the plane of a given meridian and an arbitrary initial meridian, generally the meridian of Greenwich" (ACSM, 1978, <u>Definition of Surveying Terms</u>, page 97). As with latitude, longitude can be astronomic, geocentric or geodetic. Geodetic longitude, lithe angle between the plane of a geodetic meridian and the plane of an initial meridian" (ACSM, 1978, <u>Definition of Surveying Terms</u>, page 98), is used in this attribute. In the United States geodetic longitudes are numbered from the Meridian of Greenwich, and in the North American Datum 1927, are computed from the meridian of Meades Ranch.

For the United States geodetic longitudes are usually west or negative, however in parts of Alaska they may be east. The direction designation in the BLM PCCS program is assumed west.

2) State Plane Coordinate System Easting (X). The state Plane Coordinate East is synonymous with X.

The National Geodetic Survey (NGS) and its predecessor the Coast and Geodetic Survey have defined a series of projection coordinate systems for every state based on either Lambert conic conformal or transverse Mercator projection. Each state is divided into one or more zones. The State and zone are both needed to uniquely identify the coordinate reference. If State Plane Coordinates are the position value system, then attribute SPC Zone must have a value.

The general statement of accuracy of state Plane Coordinates (SPC) is one part in 10,000. All SPC values are computed on a reference spheroid and as such are Datum dependent. Therefore Datum must be specified. In the NAD 27 Datum SPC values are survey feet and in the North American Datum 1983 (NAD 83) the values are meters.

- 3) Universal Transverse Mercator East (X). The Mercator cylinder projection was first developed by Lambert in 1772 and analytically developed by Gauss (1882) and Kruger (1912). The Universal Transverse Mercator (UTM) is based on the Mercator projection and was specified in 1958 as being:
  - 1. six degree zones
  - 2. Clarke 1866 reference ellipsoid
  - 3. length unit is the meter
  - 4. false Easting of 500,000 for each zone
  - 5. latitude origin is the equator
  - 6. longitude origin is the zone central meridian
  - 7. scale factor at the central meridian is 0.9996

The Geological Survey shows UTM zones and coordinates ticks on all map products 1:100,000 scale and larger and distributes its Digital Line Graph (DLG) in UTM coordinate space. Continental United States is covered by zones 10 through 19. UTM coordinates are Datum and zone dependent, therefore, each must be specified for completeness.

UTM Coordinate values are expressed as full value with the decimal point as required.

Attribute Name: X String Coordinate

Field Name: X\_STRING

Attribute Length: 5

PCCS Field Length:

**DED Picture:** 9(5)

This attribute is the X value of a coordinate pair stored in an abbreviated format with a constant subtracted from it to minimize data memory storage requirements.

Attribute Name: X String Coordinate Constant

Field Name: X\_STRING\_CONST

Attribute Length: 5

PCCS Field Length:

**DED Picture:** 9(5)

This attribute is a constant value appended to the front of all values stored in the  $X\_STRING$ .

Attribute Name: Y Adjustment Parameter

Field Name: Y\_ADJ\_PARM

Attribute Length: 10

PCCS Field Length:

**DED Picture:** 9(10)

This attribute defines the positional quality of a coordinate value in the Y or Latitude direction. If it is a statistical measure and is within a 68% confidence interval defined (ACSH, 1978, <u>Definition of Surveying Terms</u>, page 65) as "an indication of the precision of the arithmetic mean of a series of measurements. It equals the standard deviation of a single measurement (quantity) divided by the square root of the number of measurements."

Standard error of a single point is computed from the covariance matrix (Q) as a result of a least squares adjustment of a survey. It is computed as:

Standard Error Y=

Standard deviation of unit weight \*
square root (Covariance matrix Y term diagonal element)

Attribute Name: Y Adjustment Parameter Type

Field Name: ADJ\_PARM\_CD

Attribute Length: 1

PCCS Field Length:

**DED Picture:** A (1)

This attribute describes how the values for Y ADJUSTMENT PARAMETER are derived.

CODE	<u>Description</u>
A	Standard Error 68% confidence interval (one sigma)
В	Standard Error 95% confidence interval (two sigma)
С	Distance of misclosure between survey observations and control
D	Average Radial Distance
E	Oregon Reliability Code
Z	Unknown

Attribute Name: Y Coordinate Value

Field Name: Y

Attribute Length: 12

PCCS Field Length: 10 and 12

DED Picture: 9(12)

This is the Y value for the Corner Position. It may be expressed in any coordinate system specified in the attribute Coordinate System. The major coordinate value systems are geodetic or latitude/longitude, State Plane and Universal Transverse Mercator.

## 1) Latitude -

Latitude is generally defined as the "Angular distance measured on a meridian. The length of a degree of latitude varies on account of the flattened figure of the earth, being 68.704 statute miles at the equator and 69.407 at the poles" (ACSM, 1978, Definition of Surveying Terms, page 88). There are three basic forms of latitude; astronomic, geocentric and geodetic. Astronomic is the angle between a plumb line and the plane of the celestial equator, i.e. measured on the geoid. Geocentric is the angle between the equatorial plane and a line connecting the center of the earth with a point on its surface. Geodetic is the angle between a normal to the reference spheroid and the geodetic equator.

Geodetic latitude is assumed unless otherwise stated. For the United States all geodetic latitudes are north and thus the North designation is not included as a preface. Latitude format is described in the Coordinate System units attribute.

2) State Plane Coordinate System Northing. The State Plane Coordinate North is synonymous with Y

The National Geodetic Survey (NGS) and its predecessor the Coast and Geodetic Survey have defined a series of projection coordinate systems for every state based on either Lambert conic conformal or transverse Mercator projection. Each state is divided into one or more zones. The State and zone are both needed to uniquely identify the coordinate reference. If State Plane Coordinates are the position value system, then attribute SPC Zone must have a value.

The general statement of accuracy of state Plane Coordinates (SPC) is one part in 10,000. All SPC values are computed on a reference spheroid and as such are Datum dependent. Therefore Datum must be specified. In the HAD 27 Datum SPC values are

survey feet and in the North American Datum 1983 (NAD 83) the values are meters.

- 3) Universal Transverse Mercator North (Y). The Mercator cylinder projection was first developed by Lambert in 1772 and analytically developed by Gauss (1882) and Kruger (1912). The Universal Transverse Mercator (UTM) is based on the Mercator projection and was specified in 1958 as being:
  - 1. six degree zones
  - 2. Clarke 1866 reference ellipsoid
  - 3. length unit is the meter
  - 4. false Easting of 500,000 for each zone
  - 5. latitude origin is the equator
  - 6. longitude origin is the zone central meridian
  - 7. scale factor at the central meridian is 0.9996

The Geological Survey shows UTM zones and coordinates ticks on all map products 1:100,000 scale and larger and distributes its Digital Line Graph (DLG) in UTM coordinate space. Continental United States is covered by zones 10 through 19. UTM coordinates are Datum and zone dependent, therefore, each must be specified for completeness.

UTM Coordinate values are expressed as full value with the decimal point as required.

Attribute Name: Y String Coordinate

Field Name: Y\_STRING

Attribute Length: 5

PCCS Field Length:

**DED Picture:** 9(5)

This attribute is the Y value of a coordinate pair stored in an abbreviated format with a constant subtracted from it to minimize data memory storage requirements.

Attribute Name: Y String Coordinate Constant

Field Name: Y\_STRING\_CONST

Attribute Length: 5

PCCS Field Length:

**DED Picture:** 9(5)

This attribute is a constant value appended to the front of all values stored in the  $Y\_STRING$ .

Attribute Name: Year Fieldwork

Field Name: YRFLDWK

Attribute Length: 4

PCCS Field Length:

DED Picture: 9(4)

The year the field reconnaissance work was done for the map photography.

Attribute Name: Year Published

Field Name: YRPUB

Attribute Length: 4
PCCS Field Length:

DED Picture: 9(4)

The year the quadrangle map edition was published. For example, it is possible to have a preliminary map in 1980, an interim map in 1982, and a final map in 1986. The year published is associated with the edition.

Attribute Name: Year Revised

Field Name: YRREV

Attribute Length: 4

PCCS Field Length:

**DED Picture:** 9(4)

## Appendix A **Agency Codes**

ATTRIBUTE NAME: Source Document Agency

Attribute Length: 6
PCCS Field Length: 6

AAS ATLANTIC AERIAL SURV

AB ALBERTA, CANADA ABRAMS ABRAMS AERIAL SURV

ACFPS ACF SURVEYS

ACWD ALAMEDA CO WTR DISTR

ACYRR AKRON RAILROAD

AEC ATOMIC ENERGY COMM
AEROS AERO SERVICE CORP
AEWD ARVIN-EDISON W DISTR
AGSRR ALABAMA GREAT SO RR
AHI ATWELL HICKS INC
AIRSUR AIR SURVEY CORP

AISS AI SILANDER AND SON

AK013 ALEUTIANS EAST AK0130 C OF ANCHORAGE

AK020 ANCHORAGE AK060 BRISTOL BAY

AK090 FAIRBANKS NORTH STAR

AK100 HAINES AK110 JUNEAU

AK122 KENAI PENINSULA
AK1250 C OF KETCHIKAN
AK130 KETCHIKAN GATEWAY
AK150 KODIAK ISLAND

AK164 LAKE AND PENINSUIA AK170 MATANUSKA-SUSITNA

AK185 NORTH SLOPE

AK188 NORTHWEST ARCTIC

AK220 SITKA

AK999 UNORGANIZED

AKDAVI AK DIV OF AVIATION AKDLS AK DIV LAND SURVEY AKGEO ALASKAN GEOPHYSICAL

AKHD AK HIGHWAY DEPT
AKLPCO AX LUMBER AND PULP
AKPWR AK POWER ADMIN

CHAMBERS

AL001 AUTAUGA AL003 BALDWIN AL005 BARBOUR AL007 BIBB AL009 BLOUNT AL011 BULLOCK AL013 BUTLER AL015 CALHOUN

AL017

AL019	CHEROKEE
AL021	CHILTON
AL023	CHOCTAW
AL025	CLARKE
AL027	CLAY
AL029	CLEBURNE
AL031	COFFEE
AL033	COLBERT
AL035	CONECUH
AL037	COOSA
AL039	COVINGTON
AL041	CRENSHAW
AL043	CULLMAN
AL045	DALE
AL047	DALLAS
AL049	DE KALB
AL051	ELMORE
AL053 AL055	ESCAMBIA
AL055 AL057	ETOWAH FAYETTE
AL057 AL059	FRANKLIN
AL059 AL061	GENEVA
AL063	GREENE
AL065	HALE
AL067	HENRY
AL069	HOUSTON
AL071	JACKSON
AL073	JEFFERSON
AL075	LAMAR
AL073	LAUDERDALE
AL079	LAWRENCE
AL081	LEE
AL083	LIMESTONE
AL085	LOWNDES
AL085	MACON
AL089	MADISON
AL091	MARENGO
AL091	
	MARION
AL095	MARSHALL
AL097	MOBILE
AL099	MONROE
AL101	MONTGOMERY
AL103	MORGAN
AL105	PERRY
AL107	PICKENS
AL109	PIKE
AL111	RANDOLPH
AL113	RUSSELL
AL115	ST CLAIR

AL117	SHELBY
AL119	SUMTER
AL121	TALLADEGA
AL123	TALLAPOOSA
AL125	TUSCALOOSA
AL127	WALKER
AL129	WASHINGTON
AL131	WILCOX
AL133	WINSTON
AL2130	C OF MONTGOMERY
ALGS	AL GEODETIC SURVEY
ALHD	AL HIGHWAY DEPT
ALPCO	ALABAMA POWER CO
ALSTER	
	ALSTER ASSOCIATES
AME	AERO-METRIC ENG
AMOCO	AMOCO
AMS	ARMY MAP SERVICE
AOCO	ASSOCIATED OIL CO
APC	APPALACHIAN POWER CO
AQ	AMERICAN SAMOA
AQ010	EASTERN
AQ020	MANU'A
AQ030	ROSE ISLAND
AQ040	SWAINS ISLAND
AQ050	WESTERN
AR001	ARKANSAS
AR001	
	ASHLEY
AR005	BAXTER
AR007	BENTON
AR009	BOONE
AR011	BRADLEY
AR013	CALHOUN
AR015	CARROLL
AR017	CHICOT
AR019	CLARK
AR021	CLAY
AR023	CLEBURNE
AR025	CLEVELAND
AR027	COLUMBIA
AR029	CONWAY
AR031	CRAIGHEAD
AR033	CRAWFORD
AR035	CRITTENDEN
AR037	CROSS
AR039	DALLAS
AR041	DESHA
AR043	DREW
AR045	FAULKNER

AR047	FRANKLIN
AR049	FULTON
AR051	GARLAND
AR053	GRANT
AR055	GREENE
AR057	HEMPSTEAD
AR059	HOT SPRING
AR061	HOWARD
AR063	INDEPENDENCE
AR065	IZARD
AR067	JACKSON
AR069	JEFFERSON
AR071	JOHNSON
AR073	LAFAYETTE
AR075	LAWRENCE
AR073	LEE
AR077 AR079	
	LINCOLN
AR081	LITTLE RIVER
AR083	LOGAN
AR085	LONOKE
AR087	MADISON
AR089	MARION
AR091	MILLER
AR093	MISSISSIPPI
	MONROE
AR097	MONTGOMERY
AR099	NEVADA
AR101	NEWTON
AR103	OUACHITA
AR105	PERRY
AR107	PHILLIPS
AR109	PIKE
AR111	POINSETT
AR113	POLK
AR115	POPE
AR117	PRAIRIE
AR119	PULASKI
AR121	RANDOLPH
AR123	ST FRANCIS
AR125	SALINE
AR127	SCOTT
AR129	SEARCY
AR131	SEBASTIAN
AR133	SEVIER
AR135	SHARP
AR137	STONE
AR139	UNION
AR141	VAN BUREN
AR143	WASHINGTON

AR145 AR147 AR149 AR3880 AR4063 ARCO ARFUEL ARGLS ARGS ARHD ARLAGC	WHITE WOODRUFF YELL C OF TUPELO C OF WELDON ATLANTIC RICHFIELD AR FUEL OIL COMPANY AR GEOLOGICAL SURVEY AR GEODETIC SURVEY AR HIGHWAY DEPT AR-LA GAS COMPANY
ARLAGC	ALYSEKA SERVICE CO
ASEL	ASSOCIATED G AND E
ATCO	ASSOC TRACTION CO
ATNRR	ALABAMA NORTHERN RR
ATRECO	ATLANTIC REFINING CO
ATSFRR	SANTA FE RAILROAD
ATT	AMERICAN T AND T CO
AZ001	APACHE
AZ003	COCHISE
AZ005	COCONINO
AZ007	GILA
AZ009	GRAHAM
AZ011	GREENLEE
AZ012	LA PAZ
AZ013	MARICOPA
AZ015	MOHAVE
AZ017 AZ019	NAVAJO PIMA
AZ019 AZ021	PINAL
AZ021 AZ023	SANTA CRUZ
AZ025	YAVAPAI
AZ027	YUMA
AZ0370	C OF PHOENIX
AZ0420	C OF SCOTTSDALE
AZ0490	C OF TEMPE
AZDT	AZ DEPT OF TRANSP
AZHD	AZ HIGHWAY DEPT
B+ARR	BOSTON + ALBANY RR
B+OINC	BARBER + OLYER INC
BAKER	M BAKER JR INC
BARR	BANGOR AND AROOSTOOK
BFM	BFM CORPORATION
BGAS	BRUCE + GUNN SURVEYS
BGCO	BROWN GEOPHYSICAL CO
BLERR	BESSEMER RAILROAD
BLM-AK BLM-AZ	BUREAU OF LAND MANAGEMENT - Alaska State Office BUREAU OF LAND MANAGEMENT - Arizona State Office
BLM-AZ BLM-CA	BUREAU OF LAND MANAGEMENT - Arrizona State Office
BLM-CO	BUREAU OF LAND MANAGEMENT - California State Office
BLM-ES	BUREAU OF LAND MANAGEMENT - Eastern States

BUREAU OF LAND MANAGEMENT - Idaho State Office BLM-ID BLM-MT BUREAU OF LAND MANAGEMENT - Montana State Office BLM-NM BUREAU OF LAND MANAGEMENT - New Mexico State Office BLM-NV BUREAU OF LAND MANAGEMENT - Nevada State Office BUREAU OF LAND MANAGEMENT - Oregon State Office BLM-OR BLM-UT BUREAU OF LAND MANAGEMENT - Utah State Office BUREAU OF LAND MANAGEMENT - Wyoming State Office BLM-WY BMMS BOUTELLE MACFARLANE BMRR BOSTON AND MAINE RR BMS BOSTON MUSEUM OF SCI BNRR BURLINGTON NORTHERN BELRIDGE OIL COMPANY BOCO BOF BUR OF FISHERIES BOM BUR OF MINES BUR OF RECLAMATION BOR BORR BALTIMORE AND OHIO BPA BONNEVILLE PWR ADMIN BUR OF PUBLIC ROADS BPR BRADY BRADY LAND SURVEYING BRWE BROCK AND WEYMOUTH BSA BOY SCOUTS BULE BULE AND ASSOCIATES BURK AND N-Y BUN-Y BVBRITISH VIRGIN IS BWBRADFORD WASHBURN BONO-WILLIAMS CO BWCO BONO-WILLIAMS COMP BWCO BERKELEY WTRF DEV CO BWDCO CA001 ALAMEDA CA003 ALPINE CA005 **AMADOR** CA007 BUTTE CA009 CALAVERAS CA0010 C OF ALAMEDA CA011 COLUSA CA013 CONTRA COSTA CA015 DEL NORTE CA017 EL DORADO CA019 FRESNO CA021 GLENN CA023 HUMBOLDT CA025 **IMPERIAL** CA027 INYO CA029 KERN CA031 KINGS CA033 LAKE CA0340 C OF BERKELEY CAO35 LASSEN CAO37 LOS ANGELES CAO39 MADERA

CA045 CA047 CA0470 CA0480 CA049 CA051 CA053 CA0537 CA055 CA057 CA059 CA061 CA063	MARIN MARIPOSA MENDOCINO MERCED C OF BUENA PARK C OF BURBANK MODOC MONO MONTEREY C OF CAMPBELL NAPA NEVADA ORANGE PLACER PLUMAS RIVERSIDE
	SACRAMENTO
CA069	SAN BENITO
CA071 CA0710	SAN BERNARDINO
	C OF CHULA VISTA SAN DIEGO
	SAN FRANCISCO
	SAN JOAQUIN
	SAN LUIS OBISPO
CA0790	C OF COLTON
	SAN MATEO
CA083 CA085	SANTA BARBARA SANTA CLARA
	SANTA CLARA SANTA CRUZ
	SHASTA
	SIERRA
CA093	SISKIYOU
	SOLANO
CA097	SONOMA
CA099	STANISLAUS
CA101 CA103	SUTTER TEHAMA
CA105	TRINITY
CA107	TULARE
CA109	TUOLUMNE
CA111	VENTURA
CA113	YOLO
CA115	YUBA
CA1182	C OF ENCINITAS
CA1220	C OF EUREKA
CA1364	C OF FREMONT
CA1370 CA1430	C OF CLENDALE
CA1430 CA1450	C OF GLENDALE C OF GONZALES
CA1520	C OF GUSTINE
CHIJAU	C OL GODITHE

CA1540	C OF HANFORD
CA1560	C OF HAYWARD
CA1580	
CA1660	C OF HUNTINGTON BCH
CA1970	C OF LONG BEACH
CA1980	C OF LOS ANGELES
CA2090	C OF MARTINEZ
CA2290	C OF MORRO BAY
CA2390	C OF NEWMAN
CA2480	C OF OAKLAND
CA2550	C OF ONTARIO
CA2650	C OF PALM SPRINGS
CA2700	C OF PASADENA
CA2780	C OF PISMO BEACH
CA2840	C OF PLEASANTON
CA2880	C OF PORTERVILLE
CA2940	C OF RED BLUFF
CA2970	C OF REDONDO BEACH
CA2980	C OF REDWOOD CITY
CA3210	C OF SAN BERNARDINO
CA3210	
CA3280	C OF SAN FERNANDO
CA3290	C OF SAN FRANCISCO
CA3340	C OF SAN JOSE
CA3370	C OF SAN LUIS OBISPO
CA3380	C OF SAN MARINO
CA3390	C OF SAN MATEO
CA3410	C OF SAN RAFAEL
CA3420	C OF SANTA ANA
CA3460	C OF SANTA MARIA
CA3480	C OF SANTA PAULA
CA3490	C OF SANTA ROSA
CA3590	C OF SELMA
CA3660	C OF SONOMA
CA3800	C OF SUSANVILLE
CA3920	C OF TULARE
CA4020	C OF VALLEJO
CA4027	C OF VENTURA
CA4070	C OF WALNUT CREEK
CA4100	C OF WATSONVILLE
CAB	CIVIL AERONAUT BOARD
CADC	CA DEPT OF CONSERV
CADF	CA DIV OF FORESTRY
CADH	CA DIV OF HIGHWAYS
CADPW	CA DEPT OF PUB WORKS
CADT	CA DEPT OF TRANSP
CADWR	CA DEPT OF WATER RES
CAEC	CA EARTHQUAKE COMM
CAGS	CA GEODETIC SURVEY
CANDA	CERVANTES AND ASSOC

CASLC CASPC CBQRR CCCC CCICO CEJA CFM CGS CH2M CHAMBA CHANCE CHIAS CHIPPR CHOCO CHS CHWRR	CA STATE LANDS COMM CA STATE PARKS COMM BURLINGTON RAILROAD CARBIDE AND CARBON CLEVE CLIFFS IRON CO C E JOHNSON ASSOC C F MERRIAM SURVEYOR COAST AND GEOD SURV CH2M HILL INC CHAMBLIN ASSOCIATES JE CHANCE AND ASSOC CHICAGO AERIAL SURV CHIPPERFIELD NAVIG CHEVRON OIL COMPANY CANADIAN HYDRO SER CHESAPEAKE AND WEST
CID	CENTER IRRIG DISTR
CIMRR	ILLINOIS MIDLAND RR
CITGO	CITIES SERVICE CO
CL	CLIFFORD LEISURE CE
CLA	CROZER LAND ASSOC
CLGRR	COLUMBUS-GREENVILLE
CMPPRR	MILWAUKEE AND PACIF
CNJRR	CENTRAL OF NJ RR
CNWRR	CHICAGO AND NW RR
CO001 CO003	ADAMS
CO005	ALAMOSA ARAPAHOE
CO003	ARCHULETA
CO007	BACA
CO011	BENT
CO011	BOULDER
CO015	CHAFFEE
CO017	CHEYENNE
CO017	CLEAR CREEK
CO019	
CO021	CONEJOS
CO025	COSTILLA
CO025	CROWLEY
CO027	CUSTER
CO029	DELTA
CO031	DENVER
CO035	DOLORES
CO035	DOUGLAS
CO037	EAGLE
CO039	ELBERT
CO041	EL PASO
CO043	FREMONT
	GARFIELD
CO047	GILPIN

C0051 GUNNISON C0053 HINSDALE C0055 HUERFANO C0057 JACKSON C0059 JEFFERSON C00600 C OF DENVER C0061 KIOWA C0063 KIT CARSON C0065 LAKE C0067 LA PLATA C0069 LARIMER C0071 LAS ANIMAS C0073 LINCOLN C0075 LOGAN C0077 MESA C0079 MINERAL C0081 MOFFAT C0083 MONTEZUMA C0085 MONTROSE C0087 MORGAN C0099 OTERO C0091 OURAY C0093 PARK C0095 PHILLIPS C0097 PITKIN C0099 PROWERS C0101 PUEBLO C0103 RIO BLANCO C0105 RIO GRANDE C0107 ROUTT C0109 SAGUACHE C0111 SAN JUAN C0113 SAN MIGUEL C0115 SEDGWICK C0117 SUMMIT C0119 TELLER C0121 WASHINGTON C0123 WELD C0125 YUMA C02150 C OF ROCKY FORD COMED CONSOLIDATED EDISON CONOCO CONTINENTAL OIL CO CONSPC CONSUMER POWER CO CORR CHESAPEAKE AND OHIO CORUNI CORNELL UNIVERSITY	CO049	GRAND
CO055 HUERFANO CO057 JACKSON CO059 JEFFERSON CO0600 C OF DENVER CO061 KIOWA CO063 KIT CARSON CO065 LAKE CO067 LA PLATA CO069 LARIMER CO071 LAS ANIMAS CO073 LINCOLN CO075 LOGAN CO075 LOGAN CO077 MESA CO079 MINERAL CO081 MOFFAT CO083 MONTEZUMA CO085 MONTROSE CO087 MORGAN CO095 PHILLIPS CO091 OURAY CO093 PARK CO095 PHILLIPS CO097 PITKIN CO099 PROWERS CO101 PUEBLO CO103 RIO BLANCO CO105 RIO GRANDE CO107 ROUTT CO109 SAGUACHE CO111 SAN JUAN CO113 SAN MIGUEL CO115 SEDGWICK CO117 SUMMIT CO119 TELLER CO121 WASHINGTON CO123 WELD CO125 YUMA CO2150 C OF ROCKY FORD COMPC CONSOLIDATED EDISON CONOCO CONTINENTAL OIL CO CONSPC CONSUMER POWER CO CONSPC CONSUMER POWER CO CONSUMER POWER CO CONSUMER POWER CO CONSUMER POWER CO	CO051	GUNNISON
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CO085 CO087 MORGAN CO089 CO091 COURAY CO093 PARK CO095 PHILLIPS CO097 PITKIN CO099 PROWERS CO101 PUEBLO CO103 RIO BLANCO CO105 RIO GRANDE CO107 ROUTT CO109 SAGUACHE CO111 SAN JUAN CO113 SAN MIGUEL CO115 SEDGWICK CO117 SUMMIT CO119 TELLER CO121 WASHINGTON CO123 WELD CO125 YUMA CO2150 COF ROCKY FORD CODH CO DEPT OF HIGHWAYS COGS CO GEODETIC SURVEY COLGOV CONED CONSOLIDATED EDISON CONSPC CONSUMER POWER CO CONSUMER POWER CO CONSUMER POWER CO	CO081	MOFFAT
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CO117 SUMMIT CO119 TELLER CO121 WASHINGTON CO123 WELD CO125 YUMA CO2150 C OF ROCKY FORD CODH CO DEPT OF HIGHWAYS COGS CO GEODETIC SURVEY COLGOV COLBURN AND GOVE CONED CONSOLIDATED EDISON CONOCO CONTINENTAL OIL CO CONSPC CONSUMER POWER CO CORR CHESAPEAKE AND OHIO		SAN MIGUEL
CO119 TELLER CO121 WASHINGTON CO123 WELD CO125 YUMA CO2150 C OF ROCKY FORD CODH CO DEPT OF HIGHWAYS COGS CO GEODETIC SURVEY COLGOV COLBURN AND GOVE CONED CONSOLIDATED EDISON CONOCO CONTINENTAL OIL CO CONSPC CONSUMER POWER CO CORR CHESAPEAKE AND OHIO		SEDGWICK
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CONOCO CONTINENTAL OIL CO CONSPC CONSUMER POWER CO CORR CHESAPEAKE AND OHIO		
CORR CHESAPEAKE AND OHIO	CONOCO	
	CONSPC	CONSUMER POWER CO
CORUNI CORNELL UNIVERSITY		
	CORUNI	CORNELL UNIVERSITY

CPFC	CHAMPION PAPER CO
CPRR	CANADIAN PACIFIC RR
CREOLE	CREOLE PETROLEUM CO
CRGS	CLEVE REG GEOD SURV
CRNRR	CAROLINA AND NW RR
CROSET	CROSSETT LUMBER CO
αm 0 0 1	

CT001 FAIRFIELD
CT003 HARTFORD
CT005 LITCHFIELD
CT007 MIDDLESEX

CT0080 C OF BRIDGEPORT

CT009 NEW HAVEN
CT011 NEW LONDON
CT013 TOLLAND
CT015 WINDHAM

CT0237 C OF FARMINGTON CT0280 C OF HARTFORD CT0360 C OF MADISON C OF MERIDEN CT0370 C OF MIDDLETOWN CT0380 CT0430 C OF NEW HAVEN C OF WATERBURY CT0810 CTCSF CT COMM SHELL FISH CTDT CT DEPT OF TRANSP CT GEODETIC SURVEY CTGS

CTMAIN CT MAIN INC

CT MALE ASSOCIATES CTMALE CTP+L CT POWER AND LIGHT COLUMBIA UNIVERSITY CU CENTRAL VERMONT RR CVRR DARA D A RATEKIN ASSOC DBA SYSTEMS INC DBA DC001 C OF WASHINGTON DC DCDHT DC DEPT OF HIGHWAYS

DE001 KENT

DE003 NEWCASTLE DE005 SUSSEX

DEC DAHLING ENGINEER CO

DECKER R L DECKER

DECO DETROIT EDISON CO DEDHT DE DEPT OF HIGHWAYS DELTA DELTA ENGINEERS INC DHRR DELAWARE AND HUDSON DEPT OF INTERIOR DΙ DLWRR DELAWARE RAILROAD DMA DEFENSE MAP AGENCY DKIRRR IRON RANGE RAILROAD DMRR DETROIT AND MACKINAW DMWW DENVER MUN WATER WKS

DOD DEPT OF DEFENSE

DOWCO	DOW CHEMICAL COMPANY
DRGWRR	RIO GRANDE RAILROAD
DSI	DESIGN SCIENCES INC
DTENAL	DETENAL DE MEXICO
DTSRR	TOLEDO SHORE LINE RR
DUNLAP	DUNLAP ASSOCIATES
DVLCO	D VARDEN LUMBER CO
DWPRR	DULUTH AND PACIFIC
EBDA	EAST BAY DISCH AUTH
EBMUD	E BAY MUN UTIL DISTR
ECM	ENG CLUB OF MEMPHIS
EESCC	E E STULLER CONST CO
EGENG	EVANS-GRAVES ENG INC
ELRR	LACKAWANNA RAILROAD
ENVENG	ENVIRONMENT ENG INC
ERIERR	ERIE RAILROAD
EWB	E W BRAASCH CONS ENG
FAA	FDRL AVIATION ADMIN
FAMC	FALCON AIR MAPS CO
FAS	FAIRCHILD AER SURV
FECRR	FL EAST COAST RR
FHWA	FEDERAL HIGHWAY ADM
FL001	ALACHUA
FL003	
	BAKER
FL005	BAY
FL007	BRADFORD
FL009	BREVARD
FL011	BROWARD
FL013	CALHOUN
FL015	CHARLOTTE
FL017	CITRUS
FL019	CLAY
FL021	COLLIER
FL023	COLUMBIA
FL025	DADE
FL027	DE SOTO
FL029	DIXIE
FL0290	C OF BOCA RATON
FL031	DUVAL
FL033	ESCAMBIA
FL035	FLAGLER
FL037	FRANKLIN
FL039	GADSDEN
FL041	GILCHRIST
FL043	GLADES
FL045	GULF
FL047	HAMILTON
FL049	HARDEE
FL051	HENDRY
ET 023	TEDNANDO

HERNANDO

FL053

FL055	HIGHLANDS
FL057	HILLSBOROUGH
FL0570	C OF CLEARWATER
FL059	HOLMES
FL061	INDIAN RIVER
FL063	JACKSON
FL065	JEFFERSON
FL067	LAFAYETTE
FL069	LAKE
FL071	LEE
FL073	LEON
FL075	LEVY
FL077	LIBERTY
FL0780	C OF DAYTONA BEACH
FL079	MADISON
FL081	MANATEE
FL083	MARION
FL085	MARTIN
FL087	MONROE
FL089	NASSAU
FL091	OKALOOSA
FL093	OKEECHOBEE
FL095	ORANGE
FL097	OSCEOLA
FL099	PALM BEACH
FL101	PASCO
FL103	PINELLAS
FL105	POLK
FL107	PUTNAM
FL109	ST JOHNS
FL111	ST LUCIE
FL113	SANTA ROSA
FL115	SARASOTA
FL117	SEMINOLE
FL119	SUMTER
FL121	SUWANNEE
FL123	TAYLOR
FL125	UNION
FL127	VOLUSIA
FL129 FL131	WAKULLA WALTON
FL133	WASHINGTON
FL1420	C OF HOLLYWOOD
FL1510	C OF JACKSONVILLE
FL2010	C OF MIAMI
FL2730	C OF ST PETERSBURG
FL2940	C OF TALLAHASSEE
FLDNR	FL DEPT OF NAT RES
FLDPW	FL DEPT OF PUB WORKS
FLDT	FL DEPT OF TRANSP

FLGS FLHD FLPCO FMCO FORBAC FSNSCH FWDRR GA001 GA003 GA005 GA007 GA019 GA011 GA013 GA015 GA017 GA019 GA121 GA023 GA025 GA027 GA0280 GA029 GA031 GA033 GA035 GA037 GA033 GA035 GA037 GA039 GA043 GA045	FL GEODETIC SURVEY FL HIGHWAY DEPT FLORIDA POWER CO FORD MOTOR COMPANY FORD BACON + DAVIS FARMINGTON STATE FT WORTH + DENVER RR APPLING ATKINSON BACON BAKER BALDWIN BANKS BARROW BARTOW BEN HILL BERRIEN BIBB BLECKLEY BRANTLEY BROOKS C OF ATLANTA BRYAN BULLOCH BURKE BUTTS CALHOUN CAMDEN CANDLER CARROLL
GA047 GA049 GA051	CATOOSA CHARLTON
GA051	CHATHAM CHATTAHOOCHEE
GA055	CHATTOOGA
GA057	CHEROKEE
GA059	CLARKE
GA061	CLAY
GA063	CLAYTON
GA065	CLINCH
GA067	COBB
GA069	COFFEE
GA071	COLQUITT
GA073	COLUMBIA
GA075	COOK
GA0760	C OF BRUNSWICK
GA077	COWETA
GA079	CRAWFORD
GA081	CRISP
GA083	DADE

GA085 GA087 GA089 GA091 GA093 GA095 GA097 GA099 GA101 GA103 GA105 GA107	DAWSON DECATUR DE KALB DODGE DOOLY DOUGHERTY DOUGLAS EARLY ECHOLS EFFINGHAM ELBERT EMANUEL
GA109 GA111 GA113	EVANS FANNIN FAYETTE
GA115 GA117 GA119 GA121	FLOYD FORSYTH FRANKLIN FULTON
GA123	GILMER GLASCOCK GLYNN
GA129 GA131 GA133	GORDON GRADY GREENE
GA135 GA137 GA139 GA141	GWINNETT HABERSHAM HALL HANCOCK
GA143 GA145 GA147	HARALSON HARRIS HART
GA117 GA149 GA151 GA153	HEARD HENRY HOUSTON
GA155 GA157 GA159	IRWIN JACKSON JASPER
GA161 GA163 GA165 GA167	JEFF DAVIS JEFFERSON JENKINS JOHNSON
GA169 GA171 GA173 GA175 GA177	JONES LAMAR LANIER LAURENS LEE
GA177 GA1780 GA179 GA181	C OF DUBLIN LIBERTY LINCOLN

GA183	LONG
GA185	LOWNDES
GA187	LUMPKIN
GA189	MCDUFFIE
GA191	MCINTOSH
GA193	MACON
GA195	MADISON
GA197	MARION
GA199	MERIWETHER
GA201	MILLER
GA205	MITCHELL
GA207	MONROE
GA209	MONTGOMERY
GA211	MORGAN
GA211	MURRAY
GA215	MUSCOGEE
GA215	
GA217 GA219	NEWTON
	OCONEE
GA221 GA223	OGLETHORPE PAULDING
GA225	PEACH
GA225	PLACH PICKENS
GA227 GA229	PIERCE
	PIKE
	POLK
GA235	PULASKI
GA237	
GA237	PUTNAM QUITMAN
GA239 GA241	RABUN
GA241 GA243	RANDOLPH
GA245	RICHMOND
GA247	ROCKDALE
GA249	SCHLEY
GA251	SCREVEN
GA253	SEMINOLE
GA255	SPALDING
GA257	STEPHENS
GA259	STEWART
GA261	SUMTER
GA263	TALBOT
GA265	TALIAFERRO
GA267	TATTNALL
GA269	TAYLOR
GA271	TELFAIR
GA273	TERRELL
GA275	THOMAS
GA277	TIFT
GA279	TOOMBS

GA281	TOWNS
GA283	TREUTLEN
GA285	TROUP
GA287	TURNER
GA289	TWIGGS
GA291	UNION
GA293	UPSON
GA295	WALKER
GA297	WALTON
GA299	WARE
GA301	WARREN
GA303	WASHINGTON
GA305	WAYNE
GA307	WEBSTER
GA309	WHEELER
GA311	WHITE
GA313	WHITFIELD
GA315	WILCOX
GA317	WILKES
GA319	WILKINSON
GA321	WORTH
GA3440	C OF MARIETTA
GADT	GA DEPT OF TRANSP
GAGS	GA GEODETIC SURVEY
GAHD	GA HIGHWAY DEPT
GAPC	GA POWER CO
GATECH	GEORGIA INST OF TECH
GCC	GLOGORA COAL COMPANY
GCSFRC	GULF CO + SANTA FE
GE	GENERAL ELECTRIC
GEON	GEONAUTICS INC
GHA	G HENKENHOFF ASSC
GMORR	GULF RAILROAD
GNRR	GREAT NORTHERN RR
GPCC	GENERAL PETROLEUM
GRDC	GULF RESEARCH CO
GSC	GEOD SURV OF CANADA
GSFRR	GEORGIA SOUTHERN
GTWRR	GRAND TRUNK WESTERN
GULF	GULF REFINING CO
GWRR	GREAT WESTERN RR
HALSEY	HALSEY CIVIL ENG INC
HAPT	HUGHES AIRPORT
HCFC	HARRIS CO FLOOD DIST
HDA	HORTON DENNIS ASSOC
HHWS	HETCH HETCHY WTR SUP
HI001	HAWAII
<del>-</del>	

HONOLULU

HI003

HI005	KATAMA O
	KALAWAO
HI007	KAUAI
HI009	MAUI
HI2400	C OF HONOLULU
HIDT	HI DEPT OF TRANSP
HIGS	HI GEODETIC SURVEY
HITS	HI TERRIT SURVEY
HLPCO	HOUSTON L AND P CO
HLS	HUNTER LAND SURVEY
HMCO	HANNA MINING CO
HOCO	HONOLULU OIL COMPANY
HUMBLE	HUMBLE OIL COMPANY
HYCAS	HYCON AERIAL SURV
IA001	ADAIR
IA003	ADAMS
IA005	ALLAMAKEE
IA007	APPANOOSE
IA009	AUDUBON
IA011	BENTON
IA013	BLACK HAWK
IA015	BOONE
IA017	BREMER
IA019	BUCHANAN
IA021	BUENA VISTA
IA023	BUTLER
IA025	CALHOUN
IA027	CARROLL
IA029	CASS
IA031	CEDAR
IA033	CERRO GORDO
IA035	CHEROKEE
IA037	CHICKASAW
IA039	CLARKE
IA041	CLAY
IA043	CLAYTON
IA045	CLINTON
IA047	CRAWFORD
IA049	DALLAS
IA051	DAVIS
IA053	DECATUR
IA055	DELAWARE
IA057	DES MOINES
IA059	DICKINSON
IA061	DUBUQUE
IA063	EMMET
IA065	FAYETTE
IA067	FLOYD
IA069	FRANKLIN
IA071	FREMONT

050	~
IA073	GREENE
IA075	GRUNDY
IA077	GUTHRIE
IA079	HAMILTON
IA081	HANCOCK
IA083 IA085	HARDIN HARRISON
IA087	HENRY
IA089	HOWARD
IA091	HUMBOLDT
IA093	IDA
IA095	IOWA
IA097 IA099	JACKSON JASPER
	JEFFERSON
	JOHNSON
IA105	JONES
IA107	KEOKUK
IA109	KOSSUTH
IA111	LEE
IA113	LINN
IA115	LOUISA
IA117	LUCAS
IA119	LYON
IA121	MADISON
IA123	MAHASKA
IA125	MARION
IA127	MARSHALL
IA129	MILLS
IA131	MITCHELL
IA133	MONONA
IA135	MONROE
IA137	MONTGOMERY
IA139	MUSCATINE
IA141	O'BRIEN
IA143	OSCEOLA
IA145	PAGE
IA147	PALO ALTO
IA149	PLYMOUTH
IA151	POCAHONTAS
IA153	POLK
IA155	POTTAWATTAMIE
IA157	POWESHIEK
IA159	RINGGOLD
IA161	SAC
IA163	SCOTT
IA165	SHELBY
IA167	SIOUX

T 7 1 6 0	GEODI.
IA169	STORY
IA171	TAMA
IA173	TAYLOR
IA175	UNION
IA177	VAN BUREN
IA179	WAPELLO
IA181	WARREN
IA183	WASHINGTON
IA185	WAYNE
IA187	WEBSTER
IA189	WINNEBAGO
IA191	WINNESHIEK
IA193	WOODBURY
IA195	WORTH
IA197	WRIGHT
IA2520	
IA2520 IA2530	C OF DYSART
	C OF EAGLE GROVE
IA5240	C OF MAQUOKETA
IA7490	C OF SAC CITY
IA8880	C OF WEBSTER CITY
IAA	INDIANAPOLIS AP AUTH
IAGS	INTER-AMER GEOD SURV
IAHD	IA HIGHWAY DEPT
IASUNI	IOWA STATE UNIV
IBC	INT BOUNDARY COMM
IBWC	INT BDRY WTR COMM
ICRR	ILLINOIS CENTRAL RR
ID001	ADA
ID003	ADAMS
ID005	BANNOCK
ID007	BEAR LAKE
ID009	BENEWAH
ID011	BINGHAM
ID013	BLAINE
ID015	BOISE
ID017	BONNER
ID019	BONNEVILLE
ID021	BOUNDARY
ID023	BUTTE
ID025	
12023	CAMAS
TD027	CAMAS
ID027	CANYON
ID029	CANYON CARIBOU
ID029 ID031	CANYON CARIBOU CASSIA
ID029 ID031 ID033	CANYON CARIBOU CASSIA CLARK
ID029 ID031 ID033 ID035	CANYON CARIBOU CASSIA CLARK CLEARWATER
ID029 ID031 ID033 ID035 ID037	CANYON CARIBOU CASSIA CLARK CLEARWATER CUSTER
ID029 ID031 ID033 ID035 ID037 ID039	CANYON CARIBOU CASSIA CLARK CLEARWATER CUSTER ELMORE
ID029 ID031 ID033 ID035 ID037 ID039 ID041	CANYON CARIBOU CASSIA CLARK CLEARWATER CUSTER ELMORE FRANKLIN
ID029 ID031 ID033 ID035 ID037 ID039	CANYON CARIBOU CASSIA CLARK CLEARWATER CUSTER ELMORE

ID047 ID049 ID051 ID053 ID055 ID057 ID059 ID061 ID063 ID065 ID067 ID069 ID071 ID073 ID077 ID079 ID079 ID079 ID079 ID079 ID081 ID083 ID085 ID087 ID1830 IDDH IDDT IDGS IDPWD IID IL001 IL003 IL005 IL007 IL009 IL011 IL013 IL015 IL017 IL019 IL011 IL013 IL015 IL017 IL019 IL021 IL023 IL025 IL027 IL029 IL031 IL033 IL035 IL037 IL039	GOODING IDAHO JEFFERSON JEROME KOOTENAI LATAH LEMHI LEWIS LINCOLN MADISON MINIDOKA NEZ PERCE ONEIDA OWYHEE PAYETTE POWER SHOSHONE C OF IDAHO FALLS TETON TWIN FALIS VALLEY WASHINGTON C OF TWIN FALLS ID DEPT OF HIGHWAYS ID DEPT OF TRANSP ID GEODETIC SURVEY ID DEPT OF PUB WORKS IMPERIAL IRRIG DISTR ADAMS ALEXANDER BOND BOONE BROWN BUREAU CALHOUN CARROLL CASS CHAMPAIGN CHRISTIAN CLARK CLAY CLINTON COLES COOK CRAWFORD CUMBERLAND DE KALB DE WITT
IL035	CUMBERLAND
IL039	DE WIII DOUGLAS
IL041	DU PAGE
IL045	EDGAR

IL047 IL049 IL051 IL053 IL055 IL057 IL059 IL061 IL063 IL065 IL067 IL069 IL071 IL073 IL077 IL079 IL081 IL083 IL0840 IL085 IL085 IL089 IL091 IL093 IL099 IL101 IL103 IL109 IL101 IL103 IL105 IL107 IL109 IL111 IL113 IL115 IL117 IL119 IL121 IL123 IL125 IL127 IL129 IL131 IL133 IL135 IL137 IL139	EDWARDS EFFINGHAM FAYETTE FORD FRANKLIN FULTON GALLATIN GREENE GRUNDY HAMILTON HANCOCK HARDIN HENDERSON HENRY IROQUOIS JACKSON JASPER JEFFERSON JERSEY C OF BLOOMINGTON JO DAVIESS JOHNSON KANE KANKAKEE KENDALL KNOX LAKE LA SALLE LAWRENCE LEE LIVINGSTON LOGAN MCDONOUGH MCHENRY MCLEAN MACON MACOUPIN MADISON MARION MARSHALL MASON MARSHALL MASON MARSAC MENARD MERCER MONROE MONTGOMERY MORGAN MOULTRIE
IL141	OGLE
IL143	PEORIA
IL145	PERRY

IL147 IL149 IL151 IL153 IL155 IL1550 IL157 IL159 IL161 IL163 IL165 IL167	PIATT PIKE POPE PULASKI PUTNAM C OF CHAMPAIGN RANDOLPH RICHLAND ROCK ISLAND ST CLAIR SALINE SANGAMON C OF CHICAGO
IL169	SCHUYLER
IL171	SCOTT
IL173 IL175	SHELBY STARK
IL177	STEPHENSON
IL179	TAZEWELL
IL181	UNION
IL183	VERMILION
IL185	WABASH
IL187	WARREN
IL189	WASHINGTON
IL191	WAYNE
IL193 IL195	WHITE
IL195	WHITESIDE WILL
IL199	WILLIAMSON
IL201	WINNEBAGO
IL203	WOODFORD
IL2380	C OF DIXON
IL3200	C OF FREEBURG
IL3910	C OF HIGHLAND PARK
IL4710	C OF LAWRENCEVILLE
IL4910	C OF LOCKPORT
IL5360 IL6850	C OF MASON CITY C OF PEORIA
IL7640	C OF ST CHARLES
IL9210	C OF WESTERN SPRINGS
IL9450	C OF WINNEBAGO
ILDPW	IL DEPT OF PUB WORKS
ILDT	IL DEPT OF TRANSP
ILDW	IL DIV OF WATERWAYS
ILGS	IL GEODETIC SURVEY
ILHD ILSC	IL HIGHWAY DEPT IL SANITARY COMM
IMECO	IN-MI ELECTRIC CO
INO01	ADAMS
IN003	ALLEN

IN005	BARTHOLOMEW
IN007	BENTON
IN009	BLACKFORD
IN011	BOONE
IN013	BROWN
IN015	CARROLL
IN017	CASS
IN017	CLARK
IN021	CLAY
IN021	CLINTON
IN025	
	CRAWFORD
IN027	DAVIESS
IN029	DEARBORN
IN031	DECATUR
IN033	DE KALB
IN035	DELAWARE
IN037	DUBOIS
IN039	ELKHART
IN041	FAYETTE
IN043	FLOYD
IN045	FOUNTAIN
IN047	FRANKLIN
IN049	FULTON
IN051	GIBSON
IN051	
	GRANT
IN055	GREENE
IN057	HAMILTON
IN059	HANCOCK
IN061	HARRISON
IN063	HENDRICKS
IN065	HENRY
IN067	HOWARD
IN069	HUNTINGTON
IN071	JACKSON
IN071	
	JASPER
IN075	JAY
IN077	JEFFERSON
IN079	JENNINGS
IN081	JOHNSON
IN083	KNOX
IN085	KOSCIUSKO
IN087	LAGRANGE
IN089	
	LAKE
IN091	LA PORTE
IN093	LAWRENCE
IN095	MADISON
IN097	MARION
IN099	MARSHALL

IN101	MARTIN
IN103	MIAMI
IN105	MONROE
IN107	MONTGOMERY
IN109	MORGAN
IN111	NEWTON
IN111 IN113	NOBLE
IN115	OHIO
IN113 IN117	ORANGE
IN117 IN119	OWEN
IN121	PARKE
IN121	PERRY
IN125	PIKE
IN123 IN127	PORTER
IN127 IN129	POSEY
IN129 IN131	PULASKI
IN131 IN133	PUTNAM
IN135	RANDOLPH
IN135 IN137	RIPLEY
IN137 IN139	RUSH
IN139 IN141	ST JOSEPH
IN141 IN143	SCOTT
IN145	SHELBY
IN145 IN147	SPENCER
IN147 IN149	STARKE
IN149 IN151	STEUBEN
IN151 IN153	SULLIVAN
IN155	SWITZERLAND
IN155	TIPPECANOE
IN157 IN159	TIPTON
IN161	UNION
IN161	VANDERBURGH
IN165	VERMILLION
IN165	VIGO
IN167	WABASH
IN109 IN171	WARREN
IN171	WARRICK
IN175	WASHINGTON
IN175	WAYNE
IN177 IN179	WELLS
IN179 IN181	WHITE
IN183	WHITLEY
IN1830	C OF GOSHEN
IN3480	C OF NEW HAVEN
INDNR	IN DEPT OF NAT RES
INFCC	IN FLOOD CONTR COMM
INFOTK	INFOTECH - BLM CONTRACTOR
INGS	IN GEODETIC SURVEY
INHD	IN HIGHWAY DEPT
INTRR	INTERSTATE RAILROAD
IOWAGS	1A GEODETIC SURVEY
TONAGO	TI OHODHITC DONVEL

IRC	ILLINOIS RIVER COMM
ISBELL	ISBELL CONST COMPANY
IWC	INT WATERWAYS COMM
JBB	J B BLYDENBURGH SURV
JCMD	JEFFERSON CO MAP
JKPLS	JEFF KERN PLS
JPL	JET PROPULSION LAB
KAISER	KAISER INDUSTRY CORP
KCSRR	KC SOUTHERN RAILROAD
KDNSKI	KONSKI ENGINEERS
KETCH	KETCHIKAN PULP CO
KS001	ALLEN
KS003	ANDERSON
KS005	ATCHISON
KS007	BARBER
KS009	BARTON
KS011	BOURBON
KS013	BROWN
KS015	BUTLER
KS017	CHASE
KS019	CHAUTAUQUA
KS021	CHEROKEE
KS023	CHEYENNE
KS025	CLARK
KS027	CLAY
KS029	CLOUD
KS031	COFFEY
KS033	COMANCHE
KS035	COWLEY
KS037	CRAWFORD
KS039	DECATUR
KS041	DICKINSON
KS043	DONIPHAN
KS045	DOUGLAS
KS047	EDWARDS
KS049	ELK
KS051	ELLIS
KS053	ELLSWORTH
KS055	FINNEY
KS057	FORD
KS057	FRANKLIN
KS059	GEARY
KS063	
KS065	GOVE
	GRAHAM
KS067	GRANT
KS069	GRAY
KS071	GREELEY
KS073	GREENWOOD
KS075	HAMILTON

KS077	HARPER
KS079	HARVEY
KS081	HASKELL
KS083	HODGEMAN
KS085	JACKSON
KS087	JEFFERSON
KS089	JEWELL
	JOHNSON
KS093	KEARNY
KS095	KINGMAN
KS097	KINGMAN
KS097	LABETTE
KS101	LANE
KS101	LEAVENWORTH
KS105	LINCOLN
KS107	LINN
KS107	LOGAN
KS105	LYON
KS113	MCPHERSON
KS115	MARION
KS117	MARSHALL
KS119	MEADE
	MIAMI
	MITCHELL
KS125	MONTGOMERY
KS127	MORRIS
KS129	MORTON
KS131	NEMAHA
KS133	NEOSHO
KS135	NESS
KS137	NORTON
KS139	OSAGE
KS141	OSBORNE
KS143	OTTAWA
KS145	PAWNEE
KS147	PHILLIPS
KS149 KS151	POTTAWATOMIE
	PRATT
KS153	RAWLINS
KS155	RENO
KS157	REPUBLIC
KS159	RICE
KS161 KS163	RILEY
KS165	ROOKS
KS165 KS167	RUSH RUSSELL
KS167 KS169	
	SALINE
KS171 KS173	SCOTT
VDT / 2	SEDGWICK

KS175	SEWARD
KS177	SHAWNEE
KS179	SHERIDAN
KS181	SHERMAN
KS183	SMITH
KS185	STAFFORD
KS187	STANTON
KS189	STEVENS
KS191	SUMNER
KS193	THOMAS
KS195	TREGO
KS197	WABAUNSEE
KS199	WALLACE
KS201	WASHINGTON
KS203	WICHITA
KS205	WILSON
KS207	WOODSON
KS209	WYANDOTTE
KS5400	C OF TOPEKA
KSDT	KS DEPT OF TRANSP
KSGS KSHC	KS GEODETIC SURVEY KS HIGHWAY COMM
KSU	KANSAS STATE UNIV
KSWRB	KANSAS STATE UNIV
KU	KUWAIT
KY001	ADAIR
KY003	ALLEN
KY005	ANDERSON
KY007	BALLARD
KY009	BARREN
KY011	BATH
KY013	BELL
KY015	BOONE
KY017	BOURBON
KY019	BOYD
KY021	BOYLE
KY023	BRACKEN
KY025	BREATHITT
KY027	BRECKINRIDGE
KY029	BULLITT
KY031	BUTLER
KY033	CALDWELL
KY035	CALLOWAY
KY037	CAMPBELL
KY039	CARLISLE
KY041	CARROLL
KY043	CARTER
KY045	CASEY
KY047	CHRISTIAN
KY049	CLARK

KY051	CLAY
KY053	CLINTON
KY055	CRITTENDEN
KY057	CUMBERLAND
KY059	DAVIESS
KY061	EDMONSON
KY063	ELLIOTT
KY065	ESTILL
KY067	FAYETTE
KY069	FLEMING
KY071	FLOYD
KY073	FRANKLIN
KY075	FULTON
KY077	GALLATIN
KY079	GARRARD
KY081	GRANT
KY083	GRAVES
KY085	GRAYSON
KY087	GREEN
KY089	GREENUP
KY091	HANCOCK
KY093	HARDIN
KY095	HARLAN
KY097	HARRISON
KY099	HART
KY101	HENDERSON
KY103	HENRY
KY105	HICKMAN
KY107	HOPKINS
KY109	JACKSON
KY111	JEFFERSON
KYl13	JESSAMINE
KY115	JOHNSON
KY117	KENTON
KYl19	KNOTT
KY121	KNOX
KY123	LARUE
KY125	LAUREL
KY127	LAWRENCE
KY129	LEE
KY131	LESLIE
KY133	LETCHER
KY135	LEWIS
KY137	LINCOLN
KY139	LIVINGSTON
KY141	LOGAN
KY143	LYON
KY145	MCCRACKEN
KY147	MCCREARY

KY149	MCLEAN
KY151	MADISON
KY153	MAGOFFIN
KY155	MARION
KY157	MARSHALL
KY159	MARTIN
KY161	MASON
KY163	MEADE
KY165	MENIFEE
KY167	MERCER
KY169	METCALFE
KY171	MONROE
KY173	MONTGOMERY
KY175 KY177	MORGAN MUHLENBERG
KY177	NELSON
K1179 KY181	NICHOLAS
KY183	OHIO
KY185	OLDHAM
KY187	OWEN
KY189	OWSLEY
KY191	PENDLETON
KY193	PERRY
KY195	PIKE
KY197	POWELL
KY199	PULASKI
KY201	ROBERTSON
KY203	ROCKCASTLE
KY205	ROWAN
KY207	RUSSELL
KY209	SCOTT
KY2090	C OF LOUISVILLE
KY211	SHELBY
KY213	SIMPSON
KY215	SPENCER
KY217	TAYLOR
KY219	TODD
KY221	TRIGG
KY223	TRIMBLE UNION
KY225	
KY227	WARREN WASHINGTON
KY229	WAYNE
KY231	
KY233	WEBSTER
KY235	WHITLEY
KY237	WOLFE WOODFORD
KY239	KY DEPT OF TRANSP
KYDT	KI DEFI OF IKANSP

IZZCO	KY GEODETIC SURVEY
KYGS	KY HIGHWAY DEPT
KYHD	
LA001	ACADIA
LA003	ALLEN
LA0040	C OF ALEXANDRIA
LA005	ASCENSION
LA007	ASSUMPTION
LA009	AVOYELLES
LA011	BEAUREGARD
LA013	BIENVILLE
LA015	BOSSIER
LA017	CADDO
LA019	CALCASIEU
LA021	CALDWELL
LA023	CAMERON
LA025	CATAHOULA
LA027	CLAIBORNE
LA029	CONCORDIA
LA031	DE SOTO
LA033	EAST BATON ROUGE
LA035	EAST CARROLL
LA037	EAST FELICIANA
LA039	EVANGELINE
LA041	FRANKLIN
LA043	GRANT
LA045	IBERIA
LA047	IBERVILLE
LA049	JACKSON
LA051	JEFFERSON DAMES
LA053 LA055	JEFFERSON DAVIS LAFAYETTE
LA055	LAFOURCHE
LA059	LA SALLE
LA061	LINCOLN
LA063	LIVINGSTON
LA065	MADISON
LA067	MOREHOUSE
LA069	NATCHITOCHES
LA071	ORLEANS
LA073	OUACHITA
LA075 LA077	PLAQUEMINES
LAU / / LA079	POINTE COUPEE RAPIDES
LA079	RED RIVER
LA083	RICHLAND

LA085	SABINE
LA087	ST BERNARD
LA089	ST CHARLES
LA091	ST HELENA
LA093	ST JAMES
LA095	ST JOHN THE BAPTIST
LA097	ST LANDRY
LA099	ST MARTIN
LA101	ST MARY
LA103	ST TAMMANY
LA105	TANGIPAHOA
LA107	TENSAS
LA109	TERREBONNE
LA111	UNION
LA113	VERMILION
LA115	VERNON
LA1150	C OF JONESBORO
LA117	WASHINGTON
LA119	WEBSTER
LA121	WEST BATON ROUGE
LA123	WEST CARROLL
LA125	WEST FELICIANA
LA127	WINN
LA1690	C OF NEW ORLEANS
LA2410	C OF WEST MONROE
LACC	IA CONSERVATION COMM
LACFCD	LA FLOOD DISRTICT
LADH	LA DEPT OF HIGHWAYS
LADPW	LA DEPT OF PUB WORKS
LADTD	LA TRANSP AND DEV
LAFAVE	LAFAVE LAND SURVEYOR
LAFCOL	LAFAYETTE COLLEGE
LAGS	LA GEODETIC SURVEY
LAHRBR	LA HARBOR DEPARTMENT
LAHSCH	LOS ALTOS HIGH SCH
LAICO	LA INVESTMENT CO
LARR	LOUISIANA-ARKANSAS
LASCC	LA CONSERVATION COMM
LASU	LOUISIANA STATE UNIV
LAWPC	LA WTR AND PWR COMM
LAWRPI	LA WATER RES INST
LAWRRI	LA WATER RES INST
LDA	L DICKERSON ASSOC
LEAS	LIMBAUGH ENGINEERING
LEGER	LEGER SURVEYS INC
LEHIGH	LEHIGH UNIVERSITY
LEVITT	ITT LEVITT CORP
LINDSY	F M LINDSEY ASSOC

LIRR LONG ISLAND RAILROAD
LNRR LOUIS AND NASH RR
LOCENG LOCAL ENGINEER
LOCSUR LOCAL SURVEYOR
LONESR LONE STAR GAS CO
LPCO LAKEHEAD PIPELINE CO
LVDPW LV DEPT OF PUB WORKS

LVRR LEHIGH VALLEY RR

MA001 BARNSTABLE
MA003 BERKSHIRE
MA0035 C OF ANDOVER

MA005 BRISTOL MA007 DUKES MA009 ESSEX FRANKLIN MA011 MA0120 C OF BOSTON MA013 HAMPDEN MA015 HAMPSHIRE MA017 MIDDLESEX

MA0170 C OF CAMBRIDGE

MA019 NANTUCKET
MA021 NORFOLK
MA023 PLYMOUTH
MA025 SUFFOLK
MA27 WORCESTER
MA0660 C OF MALDEN

MACCO CORPORATION MACCO MADHOP MADDOX AND HOPKINS MA DEPT LAND-HARBORS MADLH MADPW MA DEPT OF PUB WORKS MA GEODETIC SURVEY MAGS MAI MEYER AND ASSOCIATES MARCHE MARCHESE AND SONS METRO ATLANTA RTA MARTA MATOTAN ASSOCIATES MATOTA MCAM MOLYBDENUM CORP

MCCENG MCCLELLAND ENGINEERS

MCCRON MCCRONE INC J R

MCLCO MI-CA LUMBER COMPANY
MCRR MICHIGAN CENTRAL RR
MCTUER MCCARTER AND TULLER

MD001 ALLEGANY
MD003 ANNE ARUNDEL
MD005 BALTIMORE

MD0050 C OF BALTIMORE

MD009 CALVERT
MD011 CAROLINE
MD013 CARROLL

MD015	CECIL
MD017	CHARLES
MD019	DORCHESTER
MD021	FREDERICK
MD023	GARRETT
MD025	HARFORD
MD027	HOWARD
MD029	KENT
MD031	MONTGOMERY
MD033	PRINCE GEORGE'S
MD035	QUEEN ANNE'S
MD037	ST MARY'S
MD039	SOMERSET
MD041	TALBOT
MD043	WASHINGTON
MD045	WICOMICO
MD047	WORCESTER
MD0580	C OF FREDERICK
MD0730	C OF HAGERSTOWN
MD1380	C OF SALISBURY
MDBCSM	MD BUR SURV AND MAPS
MDDNR	MD DEPT OF NAT RES
MDDT	MD DEPT OF TRANSP
MDGS	MD GEODETIC SURVEY
MDSFC	MD SHELL FISH COMM
MDSHA	MD DOT HIGHWAY ADMIN
MDSRC	MD STATE ROADS COMM
MDVABC	MD-VA BOUNDARY COMM
ME001	ANDROSCOGGIN
ME003	AROOSTOOK
ME005	CUMBERLAND
ME007	FRANKLIN
ME009	HANCOCK
ME011	KENNEBEC
ME013	KNOX
ME015	LINCOLN
ME017	OXFORD
ME019	PENOBSCOT
ME021	PISCATAQUIS
ME023	SAGADAHOC
ME025	SOMERSET
ME0250	C OF BANGOR
ME027	WALDO
ME029	WASHINGTON
ME031	YORK
ME6400	C OF PORTLAND
MEDT	ME DEPT OF TRANSP
MEGS	ME GEODETIC SURVEY
MEHD	ME HIGHWAY DEPT
MENHBC	ME-NH BOUNDARY COMM

MEPUC MGA MHAS MI001	ME PUB UTIL COMM MOORE GARDNER ASSC MARK HURD AER SURV ALCONA
MI003	ALGER
MI005	ALLEGAN
MI007 MI009	ALPENA ANTRIM
MI009 MI011	ARENAC
MI013	BARAGA
MI015	BARRY
MI017	BAY
MI019	BENZIE
MIO21	BERRIEN
MI023 MI025	BRANCH CALHOUN
MI023	CASS
MI029	CHARLEVOIX
MI031	CHEBOYGAN
MI033	CHIPPEWA
MI035	CLARE
MI037 MI039	CLINTON CRAWFORD
MI041	DELTA
MI043	DICKINSON
MI045	EATON
MI047	EMMET
MI049	GENESEE
MI0490	C OF BIRMINGHAM
MI051 MI053	GLADWIN GOGEBIC
MI055	GRAND TRAVERSE
MI057	GRATIOT
MI059	HILLSDALE
MI061	HOUGHTON
MI063	HURON
MI065 MI067	INGHAM IONIA
MI067 MI069	IONIA
MI0700	C OF CADILLAC
MI071	IRON
MI073	ISABELLA
MI075	JACKSON
MI077 MI079	KALAMAZOO
MI079 MI081	KALKASKA KENT
MI083	KEWEENAW
MI085	LAKE
MI087	LAPEER
MI089	LEELANAU

MI0890	C OF CHARLOTTE
MI091	LENAWEE
MI093	LIVINGSTON
MI095	LUCE
MI097	MACKINAC
MI099	MACOMB
	MANISTEE
MI103	MARQUETTE
MI105	MASON
MI107	MECOSTA
MI109	MENOMINEE
MI111	MIDLAND
	MISSAUKEE
	MONROE
	C OF CROSWELL
MI117	MONTCALM
MI117 MI119	MONTMORENCY
MI121 MI123	MUSKEGON
	NEWAYGO
MI125 MI1260	OAKLAND
	C OF DETROIT
MI127	OCEANA
MI129	OGEMAW
MI131	ONTONAGON
MI133	OSCEOLA
MI135	OSCODA
MI137	OTSEGO
MI139	OTTAWA
MI141	PRESQUE ISLE
MI143	ROSCOMMON
	SAGINAW
	ST CLAIR
	ST JOSEPH
	SANILAC
MI153	SCHOOLCRAFT
MI155	SHIAWASSEE
MI157	TUSCOLA
MI159	VAN BUREN
MI161	WASHTENAW
MI163	WAYNE
MI165	WEXFORD
MI1730	C OF FLINT
MI1800	C OF FRANKFORT
MI2010	C OF GRAND RAPIDS
MI2520	C OF KALAMAZOO
MI2990	C OF MANTON
MI3320	C OF MONROE
MI3740	C OF OTSEGO
MI4020	C OF PONTIAC
MI4760	C OF STURGIS
MI5310	C OF WYANDOTTE

MID MIDH MIDNR MIGS	MODESTO IRRIG DISTR MI DEPT OF HIGHWAYS MI DEPT OF NAT RES MI GEODETIC SURVEY
MINPCO	MI NORTHERN POWER CO
MISCOL	MICHIGAN ST COLLEGE
MIT MITU	MASS INST OF TECH MICHIGAN TECH UNIV
MJH	MJH INC
MKTRR	MKT RAILROAD MISSOUR
MKWS	M K WELCH SURVEYS
MLI	MILLER AND LUX INC
MME	MYERS-MACOMBER ENG
MN001	AITKIN
MN003	ANOKA
MN005	BECKER
MN007	BELTRAMI
MN009	BENTON
MN011	BIG STONE
MN013	BLUE EARTH
MNO15	BROWN
MN017	CARLTON
MN019	CARVER
MN021	CASS
MN023	CHIPPEWA
MN025	CHISAGO
MN027	CLAY
MN029	CLEARWATER
MN031	COOK
MN033	COTTONWOOD
MN035	CROW WING
MN037	DAKOTA
MN039	DODGE
MN041	DOUGLAS
MN043	FARIBAULT
MN045	FILMORE
MN047	FREEBORN
MN049	GOODHUE
MN051	GRANT
MN053	HENNEPIN
MN055	HOUSTON

HUBBARD

MN057

MN059	ISANTI
MN061	ITASCA
MN063	JACKSON
MN065	KANABEC
MN067	KANDIYOHI
MN069	KITTSON
MN071	KOOCHICHING
MN073	LAC QUI PARLE
MN075	LAKE
MH077	LAKE OF THE WOODS
MN079	LE SUEUR
MN081	LINCOLN
MH083	LYON
MH085 MN087	MCLEOD
MN087 MN089	MAHNOMEN
	MARSHALL
MN091	MARTIN
MN093	MEEKER
MN095	MILLE LACS
MN097	MORRISON
MN099	MOWER
MN101	MURRAY
MN103	NICOLLET
MN105	NOBLES
MN107	NORMAN
MN109	OLMSTED
MN111	OTTER TAIL
MN113 MN115	PENNINGTON PINE
MN117	PINE
MN117	POLK
MN121	PODE
MN121	C OF CHISHOLM
MN123	RAMSEY
MN125	RED LAKE
MN127	REDWOOD
MN129	REDWOOD
MN131	RICE
MN133	ROCK
MN135	ROSEAU
MN137	ST LOUIS
MN139	SCOTT
MN141	SHERBURNE
MN143	SIBLEY
MN145	STEARNS
MN147	STEELE
MN149	STEVENS
MN151	SWIFT
MN153	TODD
MN155	TRAVERSE

MN157	WABASHA
MN159	WADENA
MN161	WASECA
-	
MN163	WASHINGTON
MN165	WATONWAN
MN167	WILKIN
MN169	WINONA
MN171	WRIGHT
MN173	YELLOW MEDICINE
MN4760	C OF MINNEAPOLIS
MN5660	
	C OF PINE CITY
MNDNR	MN DEPT OF NAT RES
MNDT	MN DEPT OF TRANSP
MNGS	MN GEODETIC SURVEY
MNHD	MN HIGHWAY DEPT
MO001	ADAIR
MO003	ANDREW
MO005	ATCHISON
MO007	AUDRAIN
MO009	BARRY
MO011	BARTON
MO013	BATES
MO015	BENTON
MO017	BOLLINGER
MO19	BOONE
MO021	BUCHANAN
MO023	BUTLER
MO025	CALDWELL
MO027	CALLAWAY
MO027	CAMDEN
MO029	
	CAPE GIRARDEAU
MO033	CARROLL
MO035	CARTER
MO037	CASS
MO039	CEDAR
MO041	CHARITON
MO043	CHRISTIAN
MO045	CLARK
MO047	CLAY
MO049	CLINTON
MO051	COLE
MO053	COOPER
MO055	
	CRAWFORD
MO057	DADE
MO059	DALLAS
MO061	DAVIESS
MO063	DE KALB
MO065	DENT
MO067	DOUGLAS
MO069	DUNKLIN

MO071	FRANKLIN
MO073	GASCONADE
MO075	GENTRY
MO077	GREENE
MO079	GRUNDY
MO081	HARRISON
MO083	HENRY
MO085	HICKORY
MO087	HOLT
MO089	HOWARD
MO091	HOWELL
MO093	IRON
MO095	JACKSON
MO097	JASPER
	JEFFERSON
MO101	JOHNSON
MO103	KNOX
MO105	LACLEDE
MO107	LAFAYETTE
MO109	LAWRENCE
MO111	LEWIS
MO113	LINCOLN
MO115	LINN
MOll7	LIVINGSTON
MOll9	MCDONALD
MO121	MACON
MO123	MADISON
MO125	MARIES
MO127	MARION
MO129	MERCER
	_
MO131	MILLER
MO133	MISSISSIPPI
MO135	MONITEAU
MO137	MONROE
MO139	MONTGOMERY
MO141	MORGAN
MO143	NEW MADRID
MO145	NEWTON
MO147	NODAWAY
MO149	OREGON
MO151	OSAGE
MO153	OZARK
MO155	PEMISCOT
MO157	PERRY
MO159 MO161	PETTIS
MO163	PHELPS
MO163 MO165	PIKE PLATTE
MO165 MO167	PLATIE
MOTO /	FOUL

MO169	PULASKI
MO171	PUTNAM
MO173	RALLS
MO175	RANDOLPH
MO177	RAY
MO179	REYNOLDS
MO181	RIPLEY
MO183	ST CHARLES
MO185	ST CLAIR
MO186	STE GENEVIEVE
MO187	ST FRANCOIS
MO189	ST LOUIS
MO193	NOW 186
MO195	SALINE
MO197	SCHUYLER SCOTLAND
MO199	
MO201	SCOTT
MO203	SHANNON
MO205	SHELBY
MO207	STODDARD
MO209	STONE
MO211	SULLIVAN
MO213	TANEY
MO215	TEXAS
MO217	VERNON
MO219	WARREN
MO221	WASHINGTON
MO223	WAYNE
MO225	WEBSTER
MO227	WORTH
MO229	WRIGHT
MO4100	C OF JOPLIN
MO7070	C OF ST JOSEPH
MO7080	C OF ST LOUIS
MOGS	MO GEODETIC SURVEY
MOHC	MO HIGHWAY COMM
MORC	MISSOURI RIVER COMM
MPRR	MISSOURI PACIFIC RR
MPS	MCNAMEE PORTER AND S
MRGCD	MDL RIO GRANDE DIST
MRMSC	MILWAUKEE-RACINE MSC
MS001	ADAMS
MS003	ALCORN
MS005	AMITE
MS007	ATTALA
MS009	BENTON
MS011	BOLIVAR
MS013	CALHOUN
MS015	CARROLL
MS017	CHICKASAW
MS019	CHOCTAW
<del></del>	

MS045 MS047 MS049 MS051 MS053	CLAIBORNE CLARKE CLAY COAHOMA COPIAH COVINGTON DE SOTO FORREST FRANKLIN GEORGE GREENE GRENADA HANCOCK HARRISON HINDS HOLMES HUMPHREYS
MS055	ISSAQUENA
MS057	ITAWAMBA
MS059	JACKSON
MS061	JASPER
MS063	JEFFERSON
MS065	JEFFERSON DAVIS
MS067	JONES
MS069 MS071	KEMPER
MS071 MS073	LAFAYETTE LAMAR
MS075	LAUDERDALE
MS077	LAWRENCE
MS079	LEAKE
MS081	LEE
MS083	LEFLORE
MS085	LINCOLN
MS087	LOWNDES
MS089	MADISON
MS091	MARION
MS093	MARSHALL
MS095	MONROE
MS097	MONTGOMERY
MS099	NESHOBA
MS101	NEWTON
MS103	NOXUBEE
MS105	OKTIBBEHA
MS107	PANOLA
MS109	PEARL RIVER
MS111 MS113	PERRY PIKE
MS115	PONTOTOC
MS117	PRENTISS

MS145 MS147 MS149 MS151	QUITMAN RANKIN SCOTT SHARKEY SIMPSON SMITH STONE SUNFLOWER TALLAHATCHIE TATE TIPPAH TISHOMINGO TUNICA UNION WALTHALL WARREN WASHINGTON WAYNE WEBSTER WILKINSON WINSTON YALOBUSHA YAZOO MS GEODETIC SURVEY MS HIGHWAY DEPT MS POWER AND LIGHT
MT007 MT009	BROADWATER CARBON
MT011 MT013	CARTER CASCADE
MT015	CHOUTEAU
MT017	CUSTER
MT019	DANIELS
MT021	DAWSON
MT023	DEER LODGE
MT025 MT027	FALLON
MT027 MT029	FERGUS FLATHEAD
MT031	GALLATIN
MT033	GARFIELD
MT035	GLACIER
MT037	GOLDEN VALLEY
MT039	GRANITE
MT041	HILL
MT043	JEFFERSON
MT045	JUDITH BASIN

MT047	LAKE
MT049	LEWIS AND CLARK
MT051	LIBERTY
MT053	LINCOLN
MT055	MCCONE
MT057	MADISON
MT059	MEAGHER
MT061	MINERAL
MT063	MISSOULA
MT065	MUSSELSHELL
MT067	PARK
MT069	PETROLEUM
MT071	PHILLIPS
MT073	PONDERA
MT075	POWDER RIVER
MT077	POWELL
MT079	PRAIRIE
MT081	RAVALLI
MT083	RICHLAND
MT085	ROOSEVELT
MT087	ROSEBUD
MT089	SANDERS
MT091	SHERIDAN
MT093	SILVER BOW
MT095	STILLWATER
MT097	SWEET GRASS
MT099	TETON
MT101	TOOLE
MT103	TREASURE
MT105	VALLEY
MT107	WHEATLAND
MT109	WIBAUX
MT111	YELLOWSTONE
MT113	YELLOWSTONE NATL PARK
MTBOR	MT BUR OF PUB ROADS
MTDH	MT DEPT OF HIGHWAYS
MTGS	MT GEODETIC SURVEY
MTSHC	MT HIGHWAY COMM
MUNIV	MARQUETTE UNIVERSITY
MWDSC	METRO WTR DISTR S CA
MWPLC	MI-WI PIPELINE CO
NAAV	NORTH AMERICAN
NAVSER	NAVIGATION SERVICES
NC001	ALAMANCE
NC003	ALEXANDER
NC005	ALLEGHANY
NC007	ANSON
NC009	ASHE
NC011	AVERY

NC013	BEAUFORT
NC015	BERTIE
NC017	BLADEN
NC019	BRUNSWICK
NC021	BUNCOMBE
NC023	BURKE
NC025	CABARRUS
NC027	CALDWELL
NC029	CAMDEN
NC031	CARTERET
NC033	CASWELL
NC035	CATAWBA
NC037	CHATHAM
NC039	CHEROKEE
NC041	CHOWAN
NC043	CLAY
NC045	CLEVELAND
NC047	COLUMBUS
NC049	CRAVEN
NC051	CUMBERLAND
NC053	CURRITUCK
NC055	DARE
NC057	DAVIDSON
NC059	DAVIE
NC061	DUPLIN
NC063	DURHAM
NC065	EDGECOMBE
NC067	FORSYTH
NC069	FRANKLIN
NC071	GASTON
NC073	GATES
NC075	GRAHAM
NC077	GRANVILLE
NC079	GREENE
NC081	GUILFORD
NC083	HALIFAX
NC085	HARNETT
NC087	HAYWOOD
NC0870	C OF CHARLOTTE
NC089	HENDERSON
NC091	HERTFORD
NC093	HOKE
NC095	HYDE
NC097	IREDELL
NC097	JACKSON
NC101	JOHNSTON
NC101	JONES
NC105	LEE
NC107	LENOIR
110107	THIOTIV

NC109	LINCOLN
NC111	MCDOWELL
NC113	MACON
NCl15	MADISON
NCl17	MARTIN
NCl19	MECKLENBURG
NC121	MITCHELL
NC123	MONTGOMERY
NC125	MOORE
NC127	NASH
NC129	NEW HANOVER
NC131	NORTHAMPTON
NC133	ONSLOW
NC135	ORANGE
NC137	PAMLICO
NC139	PASQUOTANK
NC141	PENDER
NC143	PERQUIMANS
NC145	PERSON
NC1460	C OF ELIZABETH CITY
NC147	PITT
NC149	POLK
NC151	RANDOLPH
NC153	RICHMOND
NC155	ROBESON
NC157	ROCKINGHAM
NC159	ROWAN
NC161	RUTHERFORD
NC163	SAMPSON
NC165	SCOTLAND
NC167	STANLY
NC169	STOKES
NC171	SURRY
NC173	SWAIN
NC175	TRANSYLVANIA
NC177	TYRRELL
NC179	UNION
NC181 NC183	VANCE WAKE
NC185	WAREN
NC185	WARKEN WASHINGTON
NC187	WATAUGA
NC191	WAYNE
NC193	WILKES
NC1940	C OF GREENSBORO
NC195	WILSON
NC197	YADKIN
NC199	YANCEY
NC2450	C OF KINSTON
	-

NC3100	C OF MONROE
NC4070	C OF SALISBURY
NCDF	NC DIV OF FORESTRY
NCDNR	NC DEPT OF NAT RES
NCDOT	NC DOT DIV OF HWYS
NCGS	NC GEODETIC SURVEY
NCHC	NC HIGHWAY COMM
NCHPWC	NC HWY AND P W COMM
NCRR	NASHVILLE RAILROAD
NCSHC	NC STATE HWYS COMM
ND001	ADAMS
ND003	BARNES
ND00S	BENSON
ND007	BILLINGS
ND009	BOTTINEAU
ND011	BOWMAN
ND013 ND015	BURKE BURLEIGH
ND015	CASS
ND017	CAVALIER
ND019	DICKEY
ND021	DIVIDE
ND025	DUNN
ND027	EDDY
ND029	EMMONS
ND031	FOSTER
ND033	GOLDEN VALLEY
ND035	GRAND FORKS
ND037	GRANT
ND039	GRIGGS
ND041	HETTINGER
ND043	KIDDER
ND045	LA MOURE
ND047	LOGAN
ND047	MCHENRY
ND049	
	MCINTOSH
ND053	MCKENZIE
ND055	MCLEAN
ND057	MERCER
ND059	MORTON
ND061	MOUNTRAIL
ND063	NELSON
ND065	OLIVER
ND067	PEMBINA
ND069	PIERCE
ND071	_
	RAMSEY
ND073	RANSOM

ND075	RENVILLE
ND077	RICHLAND
ND079	ROLETTE
ND081	SARGENT
ND083	SHERIDAN
ND085	SIOUX
ND087	SLOPE
ND089	STARK
ND091	STEELE
ND093	STUTSMAN
ND095	TOWNER
ND097	TRAILL
ND097	WALSH
ND101	WARD
ND103	WELLS
ND105	WILLIAMS
NDGS	ND GEODETIC SURVEY
NDHD	ND HIGHWAY DEPT
NDSU	NORTH DAKOTA STATE U
NDWC	ND WATER COMMISSION
NE001	ADAMS
NE003	ANTELOPE
NE005	ARTHUR
NE007	BANNER
NE009	BLAINE
NE011	BOONE
NE013	BOX BUTTE
NE015	BOYD
NE017	BROWN
NE019	BUFFALO
NE021	BURT
NE023	BUTLER
NE025	CASS
NE027	CEDAR
NE029	CHASE
NE031	CHERRY
NE033	CHEYENNE
NE035	CLAY
NE037	COLFAX
NE039	CUMING
NE041	CUSTER
NE043	DAKOTA
NE045	DAWES
NE047	DAWSON
NE049	DEUEL
NE051	DIXON
NE053	DODGE
NE055	DOUGLAS

NE057	DUNDY
NE059	FILLMORE
NE061	FRANKLIN
NE063	FRONTIER
NE065	FURNAS
NE067	GAGE
NE069	GARDEN
NE071	GARFIELD
NE073	GOSPER
NE075	GRANT
NE077	GREELEY
NE079	HALL
NE081	HAMILTON
NE083	HARLAN
NE085	HAYES
NE087	HITCHCOCK
NE089	HOLT
NE091	HOOKER
NE091	
NE095	HOWARD JEFFERSON
NE095	
	JOHNSON
NE099	KEARNEY
NE101	KEITH
NE103	KEYA PAHA
NE105	KIMBALL
NE107	KNOX
NE109	LANCASTER
NE111	LINCOLN
NE113	LOGAN
NE115	LOUP
NE117	MCPHERSON
NE119	MADISON
NE121	MERRICK
NE123	MORRILL
NE125	NANCE
NE127	NEMAHA
NE129	NUCKOLLS
NE131	OTOE
NE133	PAWNEE
NE135	PERKINS
NE137	PHELPS
NE139	PIERCE
NE141	PLATTE
NE143	POLK
NE145	RED WILLOW
NE147	RICHARDSON
NE149	ROCK
NE151	SALINE
NE153	SARPY
NE155	SAUNDERS
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NE157	SCOTTS BLUFF
NE159	SEWARD
NE161	SHERIDAN
HE163	SHERMAN
NE165	SIOUX
NE167	STANTON
NE169	THAYER
NE171	THOMAS
	THURSTON
NE175	VALLEY
NE177	WASHINGTON
NE179	WAYNE
NE181	WEBSTER
NE183	WHEELER
NE185	YORK
NEDD	S NE DIVERSIFIED
NEDR	NE DEPT OF ROADS
NEGS	NE GEODETIC SURVEY
NGPCA	NATURAL GAS CO
NGS	NAT GEODETIC SURVEY
NH001	BELKNAP
NH0020	C OF BERLIN
NH003	CARROLL
NH005	CHESHIRE
NH007	COOS
NH0070	C OF CONCORD
NH009	GRAFTON
NH011	HILLSBOROUGH
NH013	MERRIMACK
NH015	ROCKINGHAM
NH017	STRAFFORD
NH019	SULLIVAN
NH0310	C OF MANCHESTER
NH0430	C OF PORTSMOUTH
NHDPWH	NH PUB WORK AND HWYS
NHGS	NH GEODETIC SURVEY
NHHD	NH HIGHWAY DEPT
NIH	NAT INST OF HEALTH
NJ001	ATLANTIC
NJ003	BERGEN
NJ005	BURLINGTON
NJ007	CAMDEN
NJ009	CAPE MAY
NJ011	CUMBERLAND
NJ013	ESSEX
NJ015	GLOUCESTER
NJ017	HUDSON
NJ019	HUNTERDON

NJ021

MERCER

NJ023	MIDDLESEX
NJ025	MONMOUTH
NJ027	MORRIS
NJ029	OCEAN
NJ031	PASSAIC
NJ033	SALEM
NJ035	SOMERSET
NJ037	SUSSEX
NJ039	UNION
NJ041	WARREN
NJ1775	C OF LYNDHURST
NJ2130	C OF NEWARK
NJ2510	C OF PATERSON
NJ2570	C OF PERTH AMBOY
NJ3705	C OF WOODBRIDGE
NJBCN	NJ BOARD OF COMMERCE
NJDCED	NJ CONS AND ECON DEV
NJDT	NJ DEPT OF TRANSP
NJGS	NJ GEODETIC SURVEY
NJP+L	NJ POWER AND LIGHT
NJSFC	NJ SHELL FISH COMM
NJZINC	NEW JERSEY ZINC CO
NM001	BERNALILLO
NM003	CATRON
NM0030	C OF ALBUQUERQUE
NM005	CHAVES
NM006	CIBOLA
NM007	COLFAX
NM009	CURRY
NM011	DE BACA
NM013	DONA ANA
NM015	EDDY
NM017	GRANT
NM0170	C OF CLAYTON
NM019	GUADALUPE
NM021	HARDING
NM023	HIDALGO
NM025	LEA
NM027	LINCOLN
NM028	LOS ALAMOS
NM029	LUNA
NM031 NM033	MCKINLEY MORA
NM035	OTERO
NM033	QUAY
NM039	RIO ARRIBA
NM041	ROOSEVELT

NM043	SANDOVAL
NM045	SAN JUAN
NM047	SAN MIGUEL
NM049	SANTA FE
NM051	SIERRA
NM053	SOCORRO
NM055	TAOS
NM057	TORRANCE
NM059	UNION
NM061	VALENCIA
NMGS	NM GEODETIC SURVEY
NMHC	NM HIGHWAY COMM
NMHD	NM HIGHWAY DEPT
NMTXBC	NM TX BOUNDARY COMM
NOS	NAT OCEAN SERVICE
NOS+WB	NEW ORLEANS SEWERAGE
NOSAMC	NOS ATLAN MARINE CTR
NOSOMA	NOS OCEANOG + MARIE
NOSPMC	NOS PACIF MARINE CTR
NPRR	NORTHERN PACIFIC RR

NPS NAT PARK SERVICE
NS NOVA SCOTTA, CANADA
NSL NAVY STANDARDS LAB
NSRR NORFOLK SOUTHERN RR
NT NORTHWEST TERRITOR

NV001 CHURCHILL
NV002 BULLFROG
NV003 CLARK
NV005 DOUGLAS
NV007 ELKO
NV009 ESMERALDA

NV009 ESMERALDA NV011 EUREKA NV013 HUMBOLDT

NV0139 C OF MOUNTAIN CITY

NV015 LANDER NV017 LINCOLN NV0170 C OF RENO

NV019 LYON NV021 MINERAL NV023 NYE

NV027 PERSHING NV029 STOREY NV031 WASHOE NV033 WHITE PINE

NVDH NV DEPT OF HIGHWAYS
NVDT NV DEPT OF TRANSP
NVGS NV GEODETIC SURVEY
NWPRR NW PACIFIC RAILROAD
NWRR NORFOLK AND WESTERN

NY001 ALBANY

NY003 NY005	ALLEGANY
	BRONX
NY007	BROOME
NY009	CATTARAUGUS
NY011	CAYUGA
NY013	CHAUTAUQUA
NY015	CHEMUNG
NY017	CHENANGO
NY019	CLINTON
NY021	COLUMBIA
NY023	CORTLAND
NY025	DELAWARE
NY027	DUTCHESS
NY029	ERIE
NY031	ESSEX
NY033	FRANKLIN
NY035	FULTON
NY037	GENESEE
NY039	GREENE
NY041	HAMILTON
NY043	HERKIMER
NY045	JEFFERSON
NY047	KINGS
NY049	LEWIS
NY051	LIVINGSTON
NY053	MADISON
NY055	MONROE
NY057	MONTGOMERY
NY059	NASSAU
NY061	NEW YORK
NY063	NIAGARA
NY065	ONEIDA
NY067	ONONDAGA
NY069	ONTARIO
NY071	ORANGE
NY073	ORLEANS
NY075	OSWEGO
NY0750	C OF BUFFALO
NY077	OTSEGO
NY079	PUTNAM
NY081	QUEENS
NY083	RENSSELAER
NY085	RICHMOND
NY087	ROCKLAND
NY089	ST LAWRENCE
NY091	SARATOGA
NY093	SCHENECTADY
NY095	SCHOHARIE
NY097	SCHUYLER
NY099	SENECA

NY101	STEUBEN
NY103	SUFFOLK
NY105	SULLIVAN
NY107	TIOGA
NY109	TOMPKINS
NY111	ULSTER
NY113	WARREN
NY115	WASHINGTON
NY117	WAYNE
NY119	WESTCHESTER
NY121	WYOMING
NY123	YATES
NY3070	C OF LACKAWANNA
NY3340	C OF LOCKPORT
NY3940	C OF MOUNT VERNON
NY4120	C OF NEW ROCHELLE
NY4170	C OF NEW YORK
NY4210	C OF NIAGARA FALLS
NY5230	C OF ROCHESTER
NY5550	C OF SCHENCTADY
NY6450	C OF WATERTOWN
NY6820	C OF YONKERS
NYBE+A	NY BOARD OF ESTIMATE
NYCRR	NEW YORK CENTRAL RR
NYDPW	NY DEPT OF PUB WORKS
NYDT	NY DEPT OF TRANSP
NYGS	NY GEODETIC SURVEY
NYHD	NY DEPT OF HIGHWAYS
NYLISP	NY LONG ISLAND SPA
NYNH+H	NY-N HVN + HARTFORD
NYNPA	NY NIAGARA PWR AUTH
NYPA	NY PORT AUTHORITY
NYSE+S	NY STATE ENG + SURV
NYSLRR	NEW YORK ST LOUIS RR
NYSS	NY STATE SURVEY
NYSWRR	SUSQUEHANNA RAILROAD
OH001	ADAMS
OH003	ALLEN
ОН005	ASHLAND
OH007	ASHTABULA
ОН0070	C OF AKRON
ОН0076	ATHENS
OH011	AUGLAIZE
OH011	BELMONT
OH015	BROWN
OH017	BUTLER
OH017 OH019	CARROLL
OH019	
OH021	CHAMPAIGN CLARK
OH025	CLERMONT
OH025	
OHUZ/	CLINTON

ОН029	COLUMBIANA
OH031	COSHOCTON
OH033	CRAWFORD
ОН035	CUYAHOGA
ОН037	DARKE
ОН039	DEFIANCE
OH041	DELAWARE
ОН043	ERIE
ОН045	FAIRFIELD
ОН047	FAYETTE
ОН049	FRANKLIN
ОН051	FULTON
ОН053	GALLIA
ОН055	GEAUGA
ОН057	GREENE
ОН059	GUERNSEY
ОН061	HAMILTON
ОН063	HANCOCK
ОН065	HARDIN
ОН067	HARRISON
ОН069	HENRY
ОН071	HIGHLAND
ОН073	HOCKING
ОН075	HOLMES
ОН077	HURON
ОН079	JACKSON
OH081	JEFFERSON
ОН083	KNOX
ОН085	LAKE
ОН087	LAWRENCE
ОН089	LICKING
ОН091	LOGAN
ОН093	LORAIN
ОН095	LUCAS
ОН097	MADISON
OH099	MAHONING
OH101	MARION
OH103	MEDINA
OH105	MEIGS
OH107	MERCER
OH109	MIAMI
OH111	MONROE
OH113	MONTGOMERY
ОН115	MORGAN
ОН117	MORROW
OH119	MUSKINGUM
OH121	NOBLE
OH123	OTTAWA

OH125	PAULDING
OH127	PERRY
ОН129	PICKAWAY
ОН131	PIKE
OH1320	C OF CANTON
OH133	PORTAGE
OH135	PREBLE
OH137	PUTNAM
OH137	RICHLAND
OH141	ROSS
OH141	SANDUSKY
OH145	SCIOTO
OH145	
	SENECA
OH149	SHELBY
	STARK
OH153	SUMMIT
OH155	TRUMBULL
OH157	TUSCARAWAS
OH159	UNION
OH161	VAN WERT
OH1610	C OF CINCINNATI
OH163	VINTON
OH165	WARREN
	WASHINGTON
	C OF CLEVELAND
OH169	WAYNE
OH171	WILLIAMS
ОН173	WOOD
OH175	WYANDOT
OH1800	C OF COLUMBUS
ОН2090	C OF DAYTON
ОН3895	C OF KETTERING
ОН4820	C OF MASSILLON
ОН8070	C OF TIFFIN
ОН8120	C OF TOLEDO
OHDT	OH DEPT OF TRANSP
OHGS	OH GEODETIC SURVEY
OHHD	OH HIGHWAY DEPT
OHOCO	OHIO OIL COMPANY
OHPCO	OHIO POWER COMPANY
OID	OAKDALE IRRIG DISTR
OK001	ADAIR
OK001	ALFALFA
OK005	ATOKA
OK003	BEAVER
OK007	BECKHAM
OK011	BLAINE
OK013	BRYAN
OK015	CADDO
OK017	CANADIAN
OK019	CARTER

OK021	CHEROKEE
OK023	CHOCTAW
OK025	CIMARRON
OK027	CLEVELAND
OK029	COAL
OK031	COMANCHE
OK033	COTTON
OK035	CRAIG
OK033	CREEK
OK037	CUSTER
OK041	DELAWARE
OK041	DEWEY
OK045	ELLIS
OK045 OK047	
	GARFIELD
OK049	GARVIN
OK051	GRADY
OK053	GRANT
OK055	GREER
OK057	HARMON
OK059	HARPER
OK061	HASKELL
OK063	HUGHES
OK065	JACKSON
OK067	JEFFERSON
OK069	JOHNSTON
OK071	KAY
OK073	KINGFISHER
OK075	KIOWA
OK077	LATIMER
OK079	LE FLORE
OK081	LINCOLN
OK083	LOGAN
OK085	LOVE
OK087	MCCLAIN
OK089	MCCURTAIN
OK091	MCINTOSH
OK093	MAJOR
OK095	MARSHALL
OK097	MAYES
OK099	MURRAY
OK101	MUSKOGEE
OK103	NOBLE
OK105	NOWATA
OK107	OKFUSKEE
OK109	OKLAHOMA
OK111	OKMULGEE
OK113	OSAGE
OK115	OTTAWA
OK117	PAWNEE
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OK119	PAYNE
OK121	PITTSBURG
OK123	PONTOTOC
OK125	POTTAWATOMIE
OK127	PUSHMATAHA
OK129	ROGER MILLS
OK123	ROGERS
OK131	SEMINOLE
OK135	SEQUOYAH
OK133	STEPHENS
OK137	TEXAS
OK141	TILLMAN
OK143	TULSA
OK145	WAGONER
OK143	WASHINGTON
OK147	WASHITA
OK149 OK151	WOODS
OK151 OK153	WOODWARD
OKCC	OK CONSERVATION COMM
OKDH	OK DEPT OF HIGHWAYS
OKDOT	OK DEFT OF HIGHWAIS
OKGS	OK GEODETIC SURVEY
OMAN	OMAN CONSTRUCTION CO
ON	ONTARIO, CANADA
ONCADH	ONTARIO DEPT OF HIGH
OR001	BAKER
OR001	BENTON
OR005	CLACKAMAS
OR003	CLATSOP
OR007	COLUMBIA
OR009 OR011	
	COOS
OR013	CROOK
OR015	CURRY
OR017	DESCHUTES
OR019	DOUGLAS
OR021	GILLIAM
OR023	GRANT
OR025	HARNEY
OR027	HOOD RIVER
OR029	JACKSON
OR031	JEFFERSON
OR033	JOSEPHINE
OR035	KLAMATH
OR037	LAKE
OR039	LANE
OR041	LINCOLN
OR043	LINN
OR045	MALHEUR
OR047	MARION
010017	1 11 11 CT OTA

OR049	MORROW
OR051	MULTNOMAH
OR053	POLK
OR055	SHERMAN
OR057	TILLAMOOK
OR059	
	UMATILLA
OR061	UNION
OR063	WALLOWA
OR065	WASCO
OR067	WASHINGTON
OR069	WHEELER
OR071	YAMHILL
OR1225	C OF LINCOLN CITY
OR1260	C OF MCMINNVILLE
OR1310	C OF MEDFORD
OR1500	C OF NEWPORT
OR1510	C OF NORTH BEND
OR1650	C OF PORTLAND
OR1810	C OF SALEM
ORDT	OR DEPT OF TRANSP
ORGS	OR GEODETIC SURVEY
ORHD	OR HIGHWAY DEPT
OROW	OHIO RIVER ORD WORKS
ORSLB	OR STATE LAND BOARD
ORTAX	OR TAX COMM
ORTI	OREGON TECH INST
PA001	ADAMS
PA003	ALLEGHENY
PA005	ARMSTRONG
PA007	BEAVER
PA009	BEDFORD
PA011	BERKS
PA013	BLAIR
PA015	BRADFORD
PA013	BUCKS
PA017	BUTLER
PA019	CAMBRIA
PA021	
	CAMERON
PA025	CARBON
PA027	CENTRE
PA029	CHESTER
PA031	CLARION
PA033	CLEARFIELD
PA035	CLINTON
PA037	COLUMBIA
PA039	CRAWFORD
PA041	CUMBERLAND
PA043	DAUPHIN
PA045	DELAWARE
PA047	ELK

PA049	ERIE
PA051	FAYETTE
PA053	FOREST
PA055	FRANKLIN
PA055	FULTON
PA059	GREENE
PA061	HUNTINGDON
PA063	INDIANA
PA065	JEFFERSON
PA067	JUNIATA
PA069	LACKAWANNA
PA071	LANCASTER
PA073	LAWRENCE
PA075	LEBANON
PA077	LEHIGH
PA079	LUZERNE
PA081	LYCOMING
PA083	MCKEAN
PA085	MERCER
PA087	MIFFLIN
PA087	MONROE
PA009	
	MONTGOMERY
PA093	MONTOUR
PA095	NORTHAMPTON
PA097	NORTHUMBERLAND
PA099	PERRY
PA0110	C OF ALLENTOWN
PA101	PHILADELPHIA
PA103	PIKE
PA105	POTTER
PA107	SCHUYLKILL
PA109	SNYDER
PA111	SOMERSET
PA113	SULLIVAN
PA115	SUSQUEHANNA
PA117	TIOGA
PA119	UNION
PA121	VENANGO
PA123	WARREN
PA1230	C OF CHAMBERSBURG
PA125	WASHINGTON
PA127	WAYNE
PA129	WESTMORELAND
PA1296	C OF CHESTER TOWNSHP
PA131	WYOMING
PA133	YORK
PA2270	C OF EASTON
PA4010	C OF JOHNSTOWN
PA6600	C OF PITTSBURGH
PA8880	C OF WASHINGTON

PA8920	C OF WAYNESBORO
PACTT	PACIFIC T AND T CO
PADFW	PA DEPT FORESTS WTRS
PADH	PA DEPT OF HIGHWAYS
PADT	PA DEPT OF TRANSP
PAGS	PA GEODETIC SURVEY
PANAM	PAN AMERICAN
PAS	PARK AERIAL SURVEYS

PAS PARK AERIAL SURVEYS
PBPP PUB BLDGS AND PARKS
PCC PEABODY COAL CO
PCRR PENN CENTRAL RR

PECO POHLY EXPLORATION CO
PEPCO POTOMAC EDISON POWER
PG+E PACIFIC G AND E CO
PGEG PETTY GEOPHYSICAL CO
PHELCO PHILA ELECTRIC CO
PHELPS B E PHELPS INC

PHILLIPS CHEMICAL CO PHILCM PHILIP PHILLIPS PETROLEUM PICGS PI C AND G SURVEY PITTSBURGH RAILROAD PLERR PMGS PM GEODETIC SURVEY PMRR PERE MARQUETTE RR PORTER NORMAN PORTER ASSOC PACIFIC P + L CO PP+L PACIFIC PORT CEMENT PPCC

PQ QUEBEC, CANADA
PRPWD PR PUB WORKS DEPT
PRR PENNSYLVANIA RR
PSFRR PANHANDLE + SANTA FE

PANHANDLE + SANIA FE
PVE PALOS VERDES ESTATES
PWPCO PA WTR AND POWER CO
R+MCON R + M CONSULTANTS
RAYONI ITT RAYONIER INC
RDGRR READING RAILROAD
REGIS ST REGIS PAPER CO

RI001 BRISTOL
RI003 KENT
RI005 NEWPORT
RI007 PROVIDENCE
RI009 WASHINGTON

RIBPR RI BUR OF PUB ROADS
RIDT RI DEPT OF TRANSP
RIGS RI GEODETIC SURVEY
RIRD RYER IS RECLAM DISTR
RIRR ROCK ISLAND RAILROAD
ROCO RICHFIELD OIL CO

RPCO REPUBLIC PRODUCTION RRLC RED RIVER LUMBER CO

RRR	RUTLAND RAILROAD
SANDIA	SANDIA CORPORATION
SBI	
	SHERWOOD BROS INC
SC001	ABBEVILLE
SC003	AIKEN
SC005	ALLENDALE
SC007	ANDERSON
SC009	BAMBERG
SC011	BARNWELL
SC013	BEAUFORT
SC015	BERKELEY
SC017	CALHOUN
SC019	CHARLESTON
SC021	CHEROKEE
SC023	CHESTER
SC025	CHESTERFIELD
SC027	CLARENDON
	COLLETON
SC031	DARLINGTON
SC033	DILLON
SC035	DORCHESTER
SC037	EDGEFIELD
SC039	FAIRFIELD
SC041	FLORENCE
SC043	GEORGETOWN
SC045	GREENVILLE
SC047	GREENWOOD
SC049	HAMPTON
SC051	HORRY
SC053	JASPER
SC055	KERSHAW
SC057	LANCASTER
SC059	LAURENS
SC061	LEE
SC063	LEXINGTON
SC065	MCCORMICK
SC067	MARION
SC069	MARLBORO
SC071	NEWBERRY
SC073	OCONEE
SC075	ORANGEBURG
SC077	PICKENS
SC079	RICHLAND
SC081	SALUDA
SC083	SPARTANBURG
SC085	SUMTER
SC087	UNION
SC089	WILLIAMSBURG
SC091	YORK

SCAN	SCANLON ASSOCIATES
SCE+G	SC ELECTRIC AND GAS
SCECO	SO CALIFORNIA EDISON
SCGS	SC GEODETIC SURVEY
SCHD	SC HIGHWAY DEPT
SCLRR	SEABOARD RAILROAD
SCPA	SC POWER AUTHORITY
SCS	SOIL CONSERV SERVICE
SCSC	SC SANTEE COOPER
SCWRC	SC WATER RES COMM
SD003	AURORA
SD005	BEADLE
SD007	BENNETT
SD009	BON HOMME
SD011	BROOKINGS
SD013	BROWN
SD015	BRULE
SD017	BUFFALO
SD019	BUTTE
SD021	CAMPBELL
SD023	CHARLES MIX
SD025	CLARK
SD027	CLAY
SD029	CODINGTON
SD031	CORSON
SD033	CUSTER
SD035	DAVISON
SD037	DAY
SD039	DEVEL
SD041	DEWEY
SD043	DOUGLAS
SD045	EDMUNDS
SD047	FALL RIVER
SD049	FAULK
SD051	GRANT
SD053	GREGORY
SD055	HAAKON
SD057	HAMLIN
SD059	HAND
SD061	HANSON
SD63	HARDING
SD065	HUGHES
SD067	HUTCHINSON
SD069	HYDE
SD071	JACKSON
SD073	JERAULD
SD075	JONES
SD077	KINGSBURY
SD079	LAKE
SD081	LAWRENCE

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SD083	LINCOLN
SD085	LYMAN
SD087	MCCOOK
SD089	MCPHERSON
SD091	MARSHALL
SD093	MEADE
SD095	MELLETTE
SD093	MINER
SD097	MINNEHAHA
SD101	MOODY
SD103	PENNINGTON
SD105	PERKINS
SD107	POTTER
SD109	ROBERTS
SD111	SANBORN
SD113	SHANNON
SD115	SPINK
SD117	STANLEY
SD119	SULLY
SD121	TODD
SD123	TRIPP
SD125	TURNER
SD127	UNION
SD129	WALWORTH
SD135	YANKTON
SD137	ZIEBACH
SD2730	C OF VERMILLION
SDARR	SAN DIEGO + ARIZONA
SDDT	SD DEPT OF TRANSP
SDG+E	SAN DIEGO G AND E CO
SDGS	SD GEODETIC SURVEY
SDHD	SD HIGHWAY DEPT
SDWD	SAN DIEGO WTR DISTR
SECO	SOUTHERN ENGINEERING
SELLS	SELLS INC CONS ENG
SEWRPC	SE WI REG PLAN COMM
SFLWMD	S FL WATER MGMT DIST
SFWD	S FRANCISCO WTR DEPT
SHELL	SHELL OIL COMPANY
SJID	SAN JOAQUIN IRR DIST
SK	SASKATCHEWAN, CANADA
SLDC	ST LAWRENCE DEV CORP
SLSFRR	ST LOUIS SAN FRAN RR
SLSWRR	ST LOUIS SW RAILROAD
SNRR	SACRAMENTO NORTHERN
SOCO	STANDARD OIL COMPANY
SOGCO	SIGNAL OIL AND GAS
SOHIO	SOHIO PETROLEUM CO
SOORR	SOO LINE RAILROAD

SOURR	SOUTHERN RAILROAD
SPAN	SPAN INTERNATIONAL
SPRR	SOUTHERN PACIFIC RR
SRVWUA	SALT R VALLEY U ASSO
SSC	SEISMOGRAPH SERVICE
STOGC	STANOLIND OIL + GAS
SUNIV	STANFORD UNIVERSITY
SUNOCO	SUN OIL COMPANY

SUPOCO SUPERIOR OIL COMPANY
SVIP SACRAMENTO IRRIG
SWBELL SW BELL TELEPHONE CO
SWECO STONE WEBSTER ENG

SWECO STONE WEBSTER ENG
SWFWMD SW FL WTR MGMT DIST
TCIRR TN COAL IRON AND RR
TCU TEXAS CHRISTIAN UNIV

TENNEC TENNECO
TEXACO TEXACO INC

THOMAS THOMAS ENG AND SURV
TID TURLOCK IRRIG DISTR
TLAKE TULARE LAKE IRRIG

TLDYNE TELEDYNE INC

TMRR TEXAS MEXICAN RR

TN001 ANDERSON TN003 **BEDFORD** TN005 BENTON TN007 BLEDSOE TN009 BLOUNT TN011 **BRADLEY** TN013 CAMPBELL TN015 CANNON TN017 CARROLL TN019 CARTER TN021 CHEATHAM TN023 CHESTER TN025 CLAIBORNE

TN027 CLAY TN029 COCKE TN031 COFFEE TN033 CROCKETT TN035 CUMBERLAND TN037 DAVIDSON TN039 **DECATUR** TN041 DE KALB TN043 DICKSON TN045 DYER TN047 FAYETTE **FENTRESS** TN049 TN051 FRANKLIN

GIBSON

TN053

TN055	GILES
TN057	GRAINGER
TN059	GREENE
TN061	GRUNDY
TN063	HAMBLEN
TN065	HAMILTON
TN067	HANCOCK
TN069	HARDEMAN
TN071	HARDIN
TN073	HAWKINS
TN075	
	HAYWOOD
TN077	HENDERSON
TN079	HENRY
TN081	HICKMAN
TN083	HOUSTON
TN085	HUMPHREYS
	JACKSON
	JEFFERSON
	JOHNSON
TN093	KNOX
TN095	LAKE
TN097	LAUDERDALE
TN099	LAWRENCE
TN101	LEWIS
TN103	LINCOLN
TN105	LOUDON
TN107	MCMINN
TN109	MCNAIRY
TN111	MACON
TN113	MADISON
TN115	MARION
TN117	MARSHALL
TN119	MAURY
TN121	MEIGS
TN123	MONROE
TN125	MONTGOMERY
TN125	MOORE
TN129	MORGAN
TN131	
TN133	OBION
TN135	OVERTON
	PERRY
TN137	PICKETT
TN139	POLK
TN141	PUTNAM
TN143	RHEA
TN145	ROANE
TN147	ROBERTSON
TN149	RUTHERFORD
TN151	SCOTT
TN153	SEQUATCHIE

TN155	SEVIER
TN157	SHELBY
TN159	SMITH
TN161	STEWART
TN163	SULLIVAN
TN165	SUMNER
TN167	TIPTON
TN169	TROUSDALE
TN171	UNICOI
TN173	UNION
TN175	VAN BUREN
TN177	WARREN
TN179	WASHINGTON
TN181	WAYNE
TN183	WEAKLEY
TN185	WHITE
TN187	WILLIAMSON
TN189	WILSON
TNDG	TN DIV OF GEOLOGY
TNDPW	TN DIV OF PUB WORKS
TNDT	TN DEPT OF TRANSP
TNGS	TN GEODETIC SURVEY
TNHD	TN HIGHWAY DEPT
TNRR	TEXAS AND NORTHERN
TPC	USATOPOCOM
TPRR	TEXAS AND PACIFIC RR
TPRR TPWRR	TEXAS AND PACIFIC RR TOLEDO AND WESTERN
	TOLEDO AND WESTERN
TPWRR	TOLEDO AND WESTERN TOBIN SURVEYS
TPWRR TSI	TOLEDO AND WESTERN TOBIN SURVEYS A E TURNER ARCHITECT
TPWRR TSI TURNER	TOLEDO AND WESTERN TOBIN SURVEYS
TPWRR TSI TURNER TVA	TOLEDO AND WESTERN TOBIN SURVEYS A E TURNER ARCHITECT TENN VALLEY AUTH
TPWRR TSI TURNER TVA TWOCO	TOLEDO AND WESTERN TOBIN SURVEYS A E TURNER ARCHITECT TENN VALLEY AUTH TIDEWATER OIL CO
TPWRR TSI TURNER TVA TWOCO TWWP	TOLEDO AND WESTERN TOBIN SURVEYS A E TURNER ARCHITECT TENN VALLEY AUTH TIDEWATER OIL CO THE WA WTR PWR CO
TPWRR TSI TURNER TVA TWOCO TWWP TX001 TX003	TOLEDO AND WESTERN TOBIN SURVEYS A E TURNER ARCHITECT TENN VALLEY AUTH TIDEWATER OIL CO THE WA WTR PWR CO ANDERSON ANDREWS
TPWRR TSI TURNER TVA TWOCO TWWP TX001 TX003 TX005	TOLEDO AND WESTERN TOBIN SURVEYS A E TURNER ARCHITECT TENN VALLEY AUTH TIDEWATER OIL CO THE WA WTR PWR CO ANDERSON ANDREWS ANGELINA
TPWRR TSI TURNER TVA TWOCO TWWP TX001 TX003 TX005 TX007	TOLEDO AND WESTERN TOBIN SURVEYS A E TURNER ARCHITECT TENN VALLEY AUTH TIDEWATER OIL CO THE WA WTR PWR CO ANDERSON ANDREWS ANGELINA ARANSAS
TPWRR TSI TURNER TVA TWOCO TWWP TX001 TX003 TX005 TX007 TX009	TOLEDO AND WESTERN TOBIN SURVEYS A E TURNER ARCHITECT TENN VALLEY AUTH TIDEWATER OIL CO THE WA WTR PWR CO ANDERSON ANDREWS ANGELINA ARANSAS ARCHER
TPWRR TSI TURNER TVA TWOCO TWWP TX001 TX003 TX005 TX007 TX009 TX011	TOLEDO AND WESTERN TOBIN SURVEYS A E TURNER ARCHITECT TENN VALLEY AUTH TIDEWATER OIL CO THE WA WTR PWR CO ANDERSON ANDREWS ANGELINA ARANSAS ARCHER ARMSTRONG
TPWRR TSI TURNER TVA TWOCO TWWP TX001 TX003 TX005 TX007 TX009 TX011 TX013	TOLEDO AND WESTERN TOBIN SURVEYS A E TURNER ARCHITECT TENN VALLEY AUTH TIDEWATER OIL CO THE WA WTR PWR CO ANDERSON ANDREWS ANGELINA ARANSAS ARCHER ARMSTRONG ATASCOSA
TPWRR TSI TURNER TVA TWOCO TWWP TX001 TX003 TX005 TX007 TX009 TX011 TX013 TX015	TOLEDO AND WESTERN TOBIN SURVEYS A E TURNER ARCHITECT TENN VALLEY AUTH TIDEWATER OIL CO THE WA WTR PWR CO ANDERSON ANDREWS ANGELINA ARANSAS ARCHER ARMSTRONG ATASCOSA AUSTIN
TPWRR TSI TURNER TVA TWOCO TWWP TX001 TX003 TX005 TX007 TX009 TX011 TX013 TX015 TX017	TOLEDO AND WESTERN TOBIN SURVEYS A E TURNER ARCHITECT TENN VALLEY AUTH TIDEWATER OIL CO THE WA WTR PWR CO ANDERSON ANDREWS ANGELINA ARANSAS ARCHER ARMSTRONG ATASCOSA AUSTIN BAILEY
TPWRR TSI TURNER TVA TWOCO TWWP TX001 TX003 TX005 TX007 TX009 TX011 TX013 TX015 TX017 TX019	TOLEDO AND WESTERN TOBIN SURVEYS A E TURNER ARCHITECT TENN VALLEY AUTH TIDEWATER OIL CO THE WA WTR PWR CO ANDERSON ANDREWS ANGELINA ARANSAS ARCHER ARMSTRONG ATASCOSA AUSTIN BAILEY BANDERA
TPWRR TSI TURNER TVA TWOCO TWWP TX001 TX003 TX005 TX007 TX009 TX011 TX013 TX015 TX017 TX019 TX019	TOLEDO AND WESTERN TOBIN SURVEYS A E TURNER ARCHITECT TENN VALLEY AUTH TIDEWATER OIL CO THE WA WTR PWR CO ANDERSON ANDREWS ANGELINA ARANSAS ARCHER ARMSTRONG ATASCOSA AUSTIN BAILEY BANDERA BASTROP
TPWRR TSI TURNER TVA TWOCO TWWP TX001 TX003 TX005 TX007 TX009 TX011 TX013 TX015 TX017 TX019 TX019 TX021 TX023	TOLEDO AND WESTERN TOBIN SURVEYS A E TURNER ARCHITECT TENN VALLEY AUTH TIDEWATER OIL CO THE WA WTR PWR CO ANDERSON ANDREWS ANGELINA ARANSAS ARCHER ARMSTRONG ATASCOSA AUSTIN BAILEY BANDERA BASTROP BAYLOR
TPWRR TSI TURNER TVA TWOCO TWWP TX001 TX003 TX005 TX007 TX009 TX011 TX013 TX015 TX017 TX019 TX019 TX021 TX023 TX025	TOLEDO AND WESTERN TOBIN SURVEYS A E TURNER ARCHITECT TENN VALLEY AUTH TIDEWATER OIL CO THE WA WTR PWR CO ANDERSON ANDREWS ANGELINA ARANSAS ARCHER ARMSTRONG ATASCOSA AUSTIN BAILEY BANDERA BASTROP BAYLOR BEE
TPWRR TSI TURNER TVA TWOCO TWWP TX001 TX003 TX005 TX007 TX009 TX011 TX013 TX015 TX017 TX019 TX019 TX021 TX023 TX025 TX027	TOLEDO AND WESTERN TOBIN SURVEYS A E TURNER ARCHITECT TENN VALLEY AUTH TIDEWATER OIL CO THE WA WTR PWR CO ANDERSON ANDREWS ANGELINA ARANSAS ARCHER ARMSTRONG ATASCOSA AUSTIN BAILEY BANDERA BASTROP BAYLOR BEE BELL
TPWRR TSI TURNER TVA TWOCO TWWP TX001 TX003 TX005 TX007 TX009 TX011 TX013 TX015 TX017 TX019 TX019 TX021 TX023 TX025 TX027 TX029	TOLEDO AND WESTERN TOBIN SURVEYS A E TURNER ARCHITECT TENN VALLEY AUTH TIDEWATER OIL CO THE WA WTR PWR CO ANDERSON ANDREWS ANGELINA ARANSAS ARCHER ARMSTRONG ATASCOSA AUSTIN BAILEY BANDERA BASTROP BAYLOR BEE BELL BEXAR
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TPWRR TSI TURNER TVA TWOCO TWWP TX001 TX003 TX005 TX007 TX009 TX011 TX013 TX015 TX017 TX019 TX019 TX021 TX023 TX025 TX027 TX029	TOLEDO AND WESTERN TOBIN SURVEYS A E TURNER ARCHITECT TENN VALLEY AUTH TIDEWATER OIL CO THE WA WTR PWR CO ANDERSON ANDREWS ANGELINA ARANSAS ARCHER ARMSTRONG ATASCOSA AUSTIN BAILEY BANDERA BASTROP BAYLOR BEE BELL BEXAR

TX037 TX039 TX041 TX043 TX045 TX047	BOWIE BRAZORIA BRAZOS BREWSTER BRISCOE BROOKS BROWN
TX051 TX053 TX0530 TX055	BURLESON BURNET C OF BELLAIRE CALDWELL
TX057 TX059 TX061 TX063	CALHOUN CALLAHAN CAMERON CAMP
TX065 TX067 TX069 TX071	CARSON CASS CASTRO CHAMBERS
TX073 TX075 TX077 TX079	CHEROKEE CHILDRESS CLAY COCHRAN
TX081 TX083 TX085	COKE COLEMAN COLLIN
TX087 TX089 TX091 TX093	COLLINGSWORTH COLORADO COMAL COMANCHE
TX095 TX097 TX099 TX101	CONCHO COOKE CORYELL COTTLE
TX103 TX105 TX107 TX109	CRANE CROCKETT CROSBY CULBERSON
TX111 TX113 TX115 TX117	DALLAM DALLAS DAWSON
TX117 TX119 TX121 TX123 TX125	DEAF SMITH DELTA DENTON DE WITT DICKENS
TX127 TX129 TX131 TX133	DIMMIT DONLEY DUVAL EASTLAND

TX135 ECTOR TX137 EDWARDS TX139 ELLIS TX141 EL PASO TX143 ERATH TX145 FALLS TX147 FANNIN TX149 FAYETTE TX151 FISHER TX153 FLOYD TX155 FOARD TX1550 C OF CORPUS CHRISTI TX157 FORT BEND TX159 FRANKLIN TX161 FREESTONE TX163 FRIO TX165 GAINES TX167 GALVESTON TX168 GARZA TX171 GILLESPIE TX173 GLASSCOCK TX1730 C OF DALLAS TX175 GOLIAD TX177 GONZALES TX177 GONZALES TX178 GRAY TX181 GRAYSON TX183 GREGG TX185 GRIMES TX185 GRIMES TX187 GUADALUPE TX189 HALE TX191 HALL TX193 HAMILTON TX195 HANSFORD TX197 HARDEMAN TX195 HANSFORD TX197 HARDEMAN TX199 HARDIN TX201 HARRIS TX203 HARRISON TX205 HARTLEY TX209 HAYS TX211 HEMPHILL TX213 HENDERSON TX215 HIDALGO TX217 HILL TX219 HOCKLEY TX219 HOCKLEY TX221 HOOD TX221 HOOD TX2221 HOOD TX2221 HOOD TX2221 HOWARD TX2227 HOWARD TX2227 HOWARD TX2227 HOWARD		
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TX205 HARTLEY TX207 HASKELL TX209 HAYS TX211 HEMPHILL TX213 HENDERSON TX215 HIDALGO TX217 HILL TX219 HOCKLEY TX2190 C OF EL PASO TX221 HOOD TX221 HOOD TX223 HOPKINS TX225 HOUSTON TX227 HOWARD	TX201	HARRIS
TX207 HASKELL TX209 HAYS TX211 HEMPHILL TX213 HENDERSON TX215 HIDALGO TX217 HILL TX219 HOCKLEY TX2190 C OF EL PASO TX221 HOOD TX221 HOOD TX223 HOPKINS TX225 HOUSTON TX227 HOWARD	TX203	HARRISON
TX209 HAYS TX211 HEMPHILL TX213 HENDERSON TX215 HIDALGO TX217 HILL TX219 HOCKLEY TX2190 C OF EL PASO TX221 HOOD TX221 HOOD TX223 HOPKINS TX225 HOUSTON TX227 HOWARD	TX205	HARTLEY
TX211 HEMPHILL TX213 HENDERSON TX215 HIDALGO TX217 HILL TX219 HOCKLEY TX2190 C OF EL PASO TX221 HOOD TX223 HOPKINS TX225 HOUSTON TX227 HOWARD	TX207	HASKELL
TX211 HEMPHILL TX213 HENDERSON TX215 HIDALGO TX217 HILL TX219 HOCKLEY TX2190 C OF EL PASO TX221 HOOD TX223 HOPKINS TX225 HOUSTON TX227 HOWARD	ТХ209	HAYS
TX213 HENDERSON TX215 HIDALGO TX217 HILL TX219 HOCKLEY TX2190 C OF EL PASO TX221 HOOD TX223 HOPKINS TX225 HOUSTON TX227 HOWARD		
TX215 HIDALGO TX217 HILL TX219 HOCKLEY TX2190 C OF EL PASO TX221 HOOD TX223 HOPKINS TX225 HOUSTON TX227 HOWARD		
TX217 HILL TX219 HOCKLEY TX2190 C OF EL PASO TX221 HOOD TX223 HOPKINS TX225 HOUSTON TX227 HOWARD	_	
TX219 HOCKLEY TX2190 C OF EL PASO TX221 HOOD TX223 HOPKINS TX225 HOUSTON TX227 HOWARD		
TX2190 C OF EL PASO TX221 HOOD TX223 HOPKINS TX225 HOUSTON TX227 HOWARD		
TX221 HOOD TX223 HOPKINS TX225 HOUSTON TX227 HOWARD		
TX223 HOPKINS TX225 HOUSTON TX227 HOWARD		
TX225 HOUSTON TX227 HOWARD		
TX227 HOWARD		
TX229 HUDSPETH		
	TX229	HUDSPETH

TX231	HUNT
TX233	HUTCHINSON
TX235	IRION
TX237	JACK
TX239	JACKSON
TX241	JASPER
TX243	JEFF DAVIS
TX245	JEFFERSON
TX2450	C OF FORT WORTH
TX247	JIM HOGG
TX249	JIM WELLS
TX251	JOHNSON
TX253	JONES
TX255	KARNES
TX257	KAUFMAN
TX259	KENDALL
TX261	KENEDY
TX263	KENT
TX265	KERR
TX267	KIMBLE
TX269	KING
TX271	KINNEY
TX273	KLEBERG
TX275	KNOX
TX277	LAMAR
TX279	LAMB
TX281	LAMPASAS
TX283	LA SALLE
TX285	
	LAVACA
TX287	LEE
TX289	LEON
TX291	LIBERTY
TX293	LIMESTONE
TX295	LIPSCOMB
TX297	LIVE OAK
TX299	LLANO
TX301	LOVING
TX303	LUBBOCK
TX305	LYNN
TX307	MCCULLOCH
TX309	MCLENNAN
TX311	MCMULLEN
TX313	MADISON
TX315	MARION
TX317	MARTIN
TX319	MASON
TX321	MATAGORDA
TX323	MAVERICK
TX325	MEDINA
TX327	MENARD

TX3280	C OF HOUSTON
TX329	MIDLAND
TX331	MILAM
TX333	MILLS
TX335	MITCHELL
TX337	MONTAGUE
TX339	MONTGOMERY
TX341	MOORE
	MORRIS
	MOTLEY
TX347	NACOGDOCHES
_	NAVARRO
	NEWTON
TX353	NOLAN
TX355	NUECES
TX357	OCHILTREE
TX359	OLDHAM
TX361	
TX363	ORANGE
	PALO PINTO
TX365	PANOLA
TX367	PARKER
TX369	PARMER
TX371	PECOS
TX373	POLK
TX375	POTTER
TX377	PRESIDIO
TX379	RAINS
TX381	RANDALL
TX383	REAGAN
TX385	REAL
	RED RIVER
	REEVES
	REFUGIO
	ROBERTS
TX395	ROBERTSON
TX397	ROCKWALL
TX399	RUNNELS
TX401	RUSK
TX403	SABINE
TX405	SAN AUGUSTINE
TX401	SAN JACINTO
TX409	SAN PATRICIO
TX411	SAN SABA
TX413	SCHLEICHER
TX415	SCURRY
TX417	SHACKELFORD
TX419	SHELBY
TX421	SHERMAN
TX423	SMITH
TX425	SOMERVELL

TX427	STARR
TX429	STEPHENS
TX431	STERLING
TX433	STONEWALL
TX435	SUTTON
TX437	SWISHER
TX439	TARRANT
TX441	TAYLOR
TX441	
_	TERRELL
TX445	TERRY
TX447	THROCKMORTON
TX449	TITUS
TX451	TOM GREEN
TX453	TRAVIS
TX455	TRINITY
TX457	TYLER
TX459	UPSHUR
TX461	UPTON
TX463	UVALDE
TX465	VAL VERDE
TX467	VAN ZANDT
TX469	VICTORIA
TX471	WALKER
TX473	WALLER
TX475	WARD
TX477	WASHINGTON
TX479	WEBB
TX481	WHARTON
TX483	WHEELER
TX485	WICHITA
TX487	WILBARGER
TX489	WILLACY
TX491	WILLIAMSON
TX493	WILSON
TX495	WINKLER
TX497	WISE
TX499	WOOD
TX501	YOAKUM
TX503	YOUNG
TX505	ZAPATA
TX507	ZAVALA
TX6090	C OF SAN ANTONIO
TXGS	TX GEODETIC SURVEY
TXHD	TX HIGHWAY DEPT
	= ::
TXRD	TX RECLAMATION DEPT
UC	UNIV OF CALIFORNIA
UDE	UNIV OF DELAWARE
UFL	UNIV OF FLORIDA
UHI	UNIV OF HAWAII

UMS UNIV OF MISSISSIPPI

UNK UNKNOWN

UNM UNIVERSITY OF NM
UNO UNIV OF NEW ORLEANS
UNOLA UNION TEXAS PETRO
UOCO UNION OIL COMPANY
UPL UTAH POWER AND LIGHT

UPRR UNION PACIFIC RR

URS URS COMPANY

USA US ARMY

USAF US AIR FORCE USCG US COAST GUARD

USDA DEPT OF AGRICULTURE

USDOT DEPT OF TRANS

USDWC US DEEP WTRWAY COMM

USE US ENGINEERS

USFS US FOREST SERVICE FEDERAL WORKS AGENCY USFWA USFWS FISH AND WILDLIFE US GOVT LAND OFFICE USGLO USGS ROCKYMT MAP CTR USGS-R USGS-W USGS WESTERN MAP CTR USGS MIDCONT MAP CTR USGS-M USGS-E USGS EASTERN MAP CTR USGS US GEOLOGICAL SURVEY UNWIN AND ASSOCIATES USKCE USLHS US LIGHTHSE SERVICE

USLS US LAKE SURVEY USMC US MARINE CORPS

USN US NAVY

USPS US POSTAL SERVICE
USPSQD US POWER SQUADRON
USSC US SUPREME COURT
USSES US SOIL EROSION SER
USTD US TREASURY DEPT
USWB US WEATHER BUREAU

UT001 **BEAVER** BOX ELDER UT003 UT005 CACHE UT007 CARBON UT009 DAGGETT UT011 DAVIS UT013 DUCHESNE UT015 **EMERY** UT017 GARFIELD UT019 **GRAND** 

UT021 UT023 UT025 UT027 UT029 UT031 UT033 UT035 UT037	IRON JUAB KANE MILLARD MORGAN PIUTE RICH SALT LAKE SAN JUAN
UT039 UT041	SANPETE SEVIER
UT043	SUMMIT
UT045	TOOELE
UT047	UINTAH
UT049	UTAH
UT051	WASATCH
UT053	WASHINGTON
UT055 UT057	WAYNE WEBER
UTDH	UT DEPT OF HIGHWAYS
UTX	UNIVERSITY OF TEXAS
UUT	UNIVERSITY OF UTAH
UVA	UNIV OF VIRGINIA
UWI	UNIV OF WISCONSIN
VA001	ACCOMACK
VA003	ALBEMARLE
VA005	ALLEGHANY
VA007 VA009	AMELIA AMHERST
VA003 VA011	APPOMATTOX
VA013	ARLINGTON
VA015	AUGUSTA
VA017	BATH
VA019	BEDFORD
VA021	BLAND
VA023	BOTETOURT
VA025	BRUNSWICK
VA027 VA029	BUCHANAN BUCKINGHAM
VA029 VA031	CAMPBELL
VA031	CAROLINE
VA035	CARROLL
VA036	CHARLES CITY
VA037	CHARLOTTE
VA041	CHESTERFIELD
VA043	CLARKE
VA045	CRAIG
VA047	CULPEPER
VA049	CUMBERLAND
VA051	DICKENSON

VA053	DINWIDDIE
VA057	ESSEX
VA059	FAIRFAX
VA055 VA061	FAUOUIER
VA063	FLOYD
VA065	FLUVANNA
VA067	FRANKLIN
VA069	FREDERICK
VA071	GILES
VA073	GLOUCESTER
VA075	GOOCHLAND
VA077	GRAYSON
VA079	GREENE
VA081	GREENSVILLE
VA083	HALIFAX
VA085	HANOVER
VA087	HENRICO
VA089	HENRY
VA091	HIGHLAND
VA093	ISLE OF WIGHT
VA095	JAMES CITY
VA097	KING AND QUEEN
VA099	KING GEORGE
VA101	KING WILLIAM
VA103	LANCASTER
VA105	LEE
VA107	LOUDOUN
VA109	LOUISA
VA111	LUNENBURG
VA113	MADISON
VA115	MATHEWS
VA117	
	MECKLENBURG
VA119	MIDDLESEX
VA121	MONTGOMERY
VA125	NELSON
VA127	NEW KENT
VA131	NORTHAMPTON
VA133	NORTHUMBERLAND
VA135	NOTTOWAY
VA137	ORANGE
VA139	PAGE
VA141	PATRICK
VA143	PITTSYLVANIA
VA145	POWHATAN
VA147	PRINCE EDWARD
VA149	PRINCE GEORGE
VA153	PRINCE WILLIAM
VA155	PULASKI
777 1 F 7	D A D D A LLA ATATO CITA

RAPPAHANNOCK

VA157

VA159	RICHMOND
VA161	ROANOKE
VA163	ROCKBRIDGE
VA165	ROCKINGHAM
VA167	RUSSELL
VA169	SCOTT
VA171	SHENANDOAH
VA1720	C OF NEWPORT NEWS
VA173	SMYTH
VA175	SOUTHAMPTON
VA1760	C OF NORFOLK
VA177	SPOTSYLVANIA
VA179	STAFFORD
VA181	SURRY
VA183	SUSSEX
VA185	TAZEWELL
VA187	WARREN
VA191	WASHINGTON
VAl93	WESTMORELAND
VA195	WISE
VA197	WYTHE
VA199	YORK
VA2060	C OF RICHMOND
VA2330	C OF STAUNTON
VA2540	C OF VIRGINIA BEACH
VACF	VA COMM OF FISHERIES
VADH	VA DEPT OF HIGHWAYS
VADHT	VA DEPT HWYS-TRANS
VAGS	VA GEODETIC SURVEY
VAILCO	VAIL COMPANY
VARR	VIRGINIA RAILWAY
VI	VIRGIN ISLANDS
VITRO	VITRO CORPORATION
VJV	V J VANLINT CONS ENG
VOCO	VALVOLINE OIL CO
VOGI	VOGI IVERS AND ASSOC
VT001	ADDISON
VT003	BENNINGTON
VT005	CALEDONIA
VT007	CHITTENDEN
VT009	ESSEX
VT011	FRANKLIN
VT013	GRAND ISLE
VT015	LAMOILLE
VT017	ORANGE
VT019	ORLEANS
VT021	RUTLAND
VT023	WASHINGTON
VT025	WINDHAM

VT027	WINDSOR
VTAT	VT AGENCY OF TRANSP
VTDH	VT DEPT OF HIGHWAYS
VTFS	VT FOREST SERVICE
VTGS	VT GEODETIC SURVEY
VTNHBC	VT-NH BOUNDARY COMM
VTRR	VERMONT RAILROAD
WA001	ADAMS
WA003	ASOTIN
WA005	BENTON
WA007	CHELAN
WA009	CLALLAM
WA011	CLARK
WA013	COLUMBIA
WA015	COWLITZ
WA017	DOUGLAS
WA0180	C OF BREMERTON
WA019	FERRY
WA021	FRANKLIN
WA023	GARFIELD
WA025	GRANT
WA027	GRAYS HARBOR
WA029	ISLAND
WA031	JEFFERSON
WA033	KING
WA035	KITSAP
WA037	KITTITAS
WA039	KLICKITAT
WA041	LEWIS
WA043	LINCOLN
WA045	MASON
WA047	OKANOGAN
WA049	PACIFIC
WA051	PEND OREILLE
WA053	PIERCE
WA055	SAN JUAN
WA057	SKAGIT
WA059	SKAMANIA
WA061	SNOHOMISH
WA063	SPOKANE
WA065	STEVENS
WA067	THURSTON
WA069	WAHKIAKUM
WA071	WALLA WALLA
WA073	WHATCOM
WA075	WHITMAN
WA077	YAKIMA
WA1190	C OF LONGVIEW
WA1550	C OF OAK HARBOR
WA1960	C OF SEATTLE

WA2110	C OF SPOKANE
WA2230	C OF TACOMA
WAA	WALKER + ASSOCIATES
WADNR	WA DEPT OF NAT RES
WADNI	WA DEFT OF NAT RES
WAGS	WA GEODETIC SURVEY
WAHC	WA HIGHWAY COMM
WANDPW	WA DEPT OF PUB WORKS
WARD	E J WARD
WARR	WESTERN OF ALABAMA
WATBA	WA TOLL BRIDGE AUTH
WAWHI	WALKER + WHITEFORD
WBCC	WARREN BROS CONST CO
WE	WESTERN ELECTRIC
WESGEO	WESTERN GEO CO AMER
WESGEO	WESTERN GEOPHYSICAL
WEYCO	WEYERHAEUSER CO
WFTA	W F TURNEY ASSC
WHITE	WHITE PIGMENT CO
WI001	ADAMS
WI003	ASHLAND
WI005	BARRON
WI007	BAYFIELD
WI009	BROWN
WI011	BUFFALO
WI011	BURNETT
WI015	CALUMET
WI017	CHIPPEWA
WI019	CLARK
WI021	COLUMBIA
WI023	CRAWFORD
WI025	DANE
WI027	DODGE
WI029	DOOR
WI031	DOUGLAS
WI033	DUNN
WI035	EAU CLAIRE
WI033	FLORENCE
WI037	
	FOND DU LAC
WI041	FOREST
WI043	GRANT
WI045	GREEN
WI047	GREEN LAKE
WI049	IOWA
WI051	IRON
WI053	JACKSON
WI055	JEFFERSON
WI055	JUNEAU
WI059	KENOSHA

KEWAUNEE

WI061

WI063 WI065	LA CROSSE LAFAYETTE
WI067	LANGLADE
WI069	LINCOLN
WI071	MANITOWOC
WI073	MARATHON
WI075	MARINETTE
WI077	MARQUETTE
WI078	MENOMINEE
WI079	MILWAUKEE
WI081	MONROE
WI083	OCONTO
WI085	ONEIDA
WI087	OUTAGAMIE
WI089	OZAUKEE
WI091	PEPIN
WI093	PIERCE
WI095 WI097	POLK
WI097	PORTAGE PRICE
WI101	RACINE
WI103	RICHLAND
WI105	ROCK
WI107	RUSK
WI109	ST CROIX
WI111	SAUK
WI113	SAWYER
WI115	SHAWANO
WI117	SHEBOYGAN
WI119	TAYLOR
WI121 WI123	TREMPEALEAU
WI125	VERNON VILAS
WI127	WALWORTH
WI129	WASHBURN
WI131	WASHINGTON
WI133	WAUKESHA
WI135	WAUPACA
WI137	WAUSHARA
WI139	WINNEBAGO
WI141	WOOD
WI1470	C OF EAU CLAIRE
WI1760	C OF FORT ATKINSON
WI2320 WI3100	C OF JANESVILLE C OF MILWAUKEE
WI3810	C OF MILWAUKEE C OF PLYMOUTH
WI3970	C OF RACINE
WI4060	C OF RHINELANDER
WI4330	C OF SHEBOYGAN
WI4730	C OF SUPERIOR
WIDNR	WI DEPT OF NAT RES

WIDT WIGS	WI DEPT OF TRANSP WI GEODETIC SURVEY
WIHD	WI HIGHWAY DEPT
WILCOL	WILLIAMS COLLEGE
WIPSC	WI PUB SERVICE COMM
WIRRC	WI RAILROAD COMM
WLERR	WHEELING RAILROAD
WMATA	WASH METRO TRANSIT
WMRR	WESTERN MARYLAND RR
WPA	WORKS PROGRESS ADMIN
WPRR	WESTERN PACIFIC RR
WPRS	WATER AND POWER RES
WRA	WIGMAN-REQUARDT
WSA	WILLIAMS-STACKHOUSE
WSSC	WASH SUBURB SAN COM
WV001	BARBOUR
WV003	BERKELEY
WV005	BOONE
WV007	BRAXTON
WV009	BROOKE
WV011	CABELL
WV013	CALHOUN
WV015	CLAY
WV017	DODDRIDGE
WV019	FAYETTE
WV021	GILMER
WV023	GRANT
WV025	GREENBRIER
WV0260	C OF BLUEFIELD
WV027	HAMPSHIRE
WV029	HANCOCK
WV031	HARDY
WV033	HARRISON
WV035	JACKSON
WV037	JEFFERSON
WV039	KANAWHA
WV041	LEWIS
WV043	LINCOLN
WV045	LOGAN
WV047	MCDOWELL
WV049	MARION
WV051	MARSHALL
WV053	MASON
WV055	MERCER
WV057	MINERAL
WV059	MINGO
WV061	MONONGALIA
WV063	MONROE
WV065	MORGAN
WV067	NICHOLAS

WV069 WV071 WV073 WV075 WV077 WV079 WV081 WV083 WV085 WV087 WV089 WV091 WV093 WV095 WV097	OHIO PENDLETON PLEASANTS POCAHONTAS PRESTON PUTNAM RALEIGH RANDOLPH RITCHIE ROANE SUMMERS TAYLOR TUCKER TYLER UPSHUR
WV099	WAYNE
WV101	WEBSTER
WV103 WV105	WETZEL WIRT
WV107	WOOD
WV109	WYOMING
WVGS	WV GEODETIC SURVEY
WVHD	WV HIGHWAY DEPT
WVUNIV	WEST VIRGINIA UNIV
WY001 WY003	ALBANY BIG HORN
WY005	CAMPBELL
WY007	CARBON
WY009	CONVERSE
WY011	CROOK
WY013	FREMONT
WY015	GOSHEN
WY017	HOT SPRINGS
WY019	JOHNSON
WY021 WY023	LARAMIE LINCOLN
WY025	NATRONA
WY027	NIOBRARA
WY029	PARK
WY031	PLATTE
WY033	SHERIDAN
WY035	SUBLETTE
WY037	SWEETWATER
WY039	TETON
WY041	UINTA
WY043	WASHAKIE
WY045	WESTON
WYGS WYHD	WY GEODETIC SURVEY WY HIGHWAY DEPT
Y+MVRR	YAZOO + MISSISSIPPI

YT YUKON TERRITORY YVRR YOSEMITE VALLEY RR

## Appendix B

## Land Grant Codes

ATTRIBUTE NAME: Land Grant Name

Attribute Length: 5
PCCS Field Length: 5

5-Digit numeric representation of land grant name for each state. This data element is constructed as follows:

GEO-ST PIC 9(2) - SEE DE 3147 GRANT NO PIC 9(3)

The grant no will appear in more than one state but will be unique when preceded by geo-st code.

Explanation line will contain alpha representation.

APPLICATION 9602 - Field note reference system uses a 6 position code. To identify land grant name. The codes listed in this data element are expanded to include an additional zero after the state value. For example the code 04001 in de-0485 is 040001 in the field note nlndgrnt table. The nlndgrnt table has been used to validate survey data since 1969.

SIZE PICTURE DEC ALIGN CHAR REP LEVEL IND USAGE FORMAT 005 X (5)

PRIMARY APPLICATION OTHER APPLICATIONS USING THIS ELEMENT 2002 9602 9691

Grant Number Grant Name 04001 ARIBACA 04002 BACA FLOAT #3 04003 BACA FLOAT #5 04004 LOS NOGALES DE ELLAS MARIA SANTISIMA DEL CARMEN - ALIAS BUENA VISTA 04005 04006 RANCHO DE MARTINEZ 04007 SABINO OTERO ET AL 04008 SAN BERNARDINO 04009 SAN IGNACIO DE LA CANOA SAN IGNACIO DEL BABOCOMARI 04010 04011 SAN JOSE DE SONITA 04012 SAN JUAN DE LAS BOQUILLAS Y NOGALES 04013 SAN RAFAEL DE LA ZANJA 04014 SAN RAFAEL DEL VALLE TUCUMCACORI AND CALABAZAS 04015 06001 SAN BUENAVENTURA 06002 EL PRIMER CANON 06003 LA BARRANCA COLORADO

06004	LAS FLORES
06005	SAUCOS
06006	RIO DE LOS MOLINOS
	BOSQUEJO
06008	
	ARROYO CHICO
	RANCHO DE FARWELL
	JACINTO
	LLANO SECO
06013	AGUAS FRIAS
06014	ESOUON
06015	FERNANDEZ
06016	LARKINS CHILDRENS RANCHO
06017	COLUS
06018	
06019	HONCUT
06020	NEW HELVETIA
06021	JOHNSON RANCHO
06022	JIMENO
	YOKAYA
06024	SANEL
06025	GERMAN
06026	
06027	BODEGA
06028	ESTERO AMERICANO
06029	BLUCHER
06030	OLAGUNA DE SAN ANTONIO
	SOULAJULE
06032	NICASIO
06033	PUNTA DE LOS REYES
06034	PUNTA DE LOS REYES - SOBRANTE
06035	LAS BAULINES
	SAUCELITO
	TOMALES Y BAULINES - PHELPS
06038	TOMALES Y BAULINES - GARCIA
06039	
06040	
06041	~
06042	CORTE DE MADERA DEL PRESIDIO
06043	SAN RAFAEL
06044	SAN PEDRO SANTA MAGARITA Y LAS GALLINAS
	SAN JOSE-PACHECO
06046	
06047	
06048	
06049	
06050	
	CANADA DE POGOLIMI
06052	CANADA DE JONIVE
	MOLINOS
06054	SOTOYOME

06055	TZABACO
06056	RINCON DE MUSALACON
06057	CASLAMAYOMI
06058	GUENOC
06059	COLLAYOMI
06060	MALLACOMES OR MORISTUL
	MALLACOMES OR MORISIOL MALLACOMES Y PLN D AGUA CALIENTE
06061	
06062	SAN MIGUEL - WEST
06063	CABEZA DE SANTA ROSA
06064	LLANO DE SANTA ROSA
06065	
06066	LOS GUILICOS
06067	
06068	PUEBLO LANDS OF SONOMA
06069	LAC
06070	S F SOLANO IN SONOMA MISSION LANDS
06071	SONOMA CITY LOT IN
06072	HUICHICA
06073	ENTRE NAPA OR RINCON DE LOS CARNEROS
06074	ENTRE NAPA
06075	TULUCAY
06076	NAPA
06077	YAJOME
06078	CAYMUS
06079	CARNE HUMANA
06080	LA JOTA
06081	LACOALLOMI
06082	CATACULA
06083	LAS PUTAS
06084	CANADA DE CAPAY
06085	GUESISOSI
06086	RIO JESUS MARIA
06087	RIO DE LOS PUTOS
06088	LOS PUTOS
06089	CHIMILES
06090	TOLENAS
06091	SUISUN
06092	LOS ULPINOS
06093	SANJON DE LOS MOQUELUMNES
06094	COSUMNES
06095	MOCHUMNES
06096	DEL PASO
06090	
06097	SAN JUAN
	RIO DE LOS AMERICANOS
06099	ARROYO SECO
06100	CAMPO DE LOS FRANCESIS
06101	STANISLAUS RIVER
06102	RANCHERIA DEL RIO ESTANISLAO
06103	YOSEMITE & BIG TREE GRANTS
06104	LAS MARIPOSAS

06149 SAN MATEO

06105	ORESTIMBA
06106	RANCHO DEL PUERTO
06107	EL PESCADERO-GRIMES
06108	EL PESCADERO-PICO & NAGLEE
06109	CANADA DE LOS VAQUEROS
06110	LOS MEGANOS
06111	LOS MEDANOS
06112	
	LAS JUNTAS
	CANADA DEL HAMBRE Y LAS BOLSAS
	ARROYO DE LAS NUECES Y BOLBONES
	SAN RAMON-CARPENTIER
06117	SAN RAMON-NORRIS
06118	SAN RAMON-AMADOR
06119	SANTA RITA
	LAS POSITAS
06121	VALLE DE SAN JOSE-SUNOL & BERNAL
06122	SAN LORENZO-CASTRO
06123	LAGUNA DE LOS PALOS COLORADOS
06124	ACALANES
06125	LA BOCA DE LA CANADA DEL PINOLE
06126	PINOLE
06127	SAN PABLO
06128	SAN ANTONIO-V & D PERALTA
06129	SAN ANTONIO-A M PERALTA
06130	SAN ANTONIO-Y PERALTA
06131	SAN LEANDRO
06132	SAN LORENZO-SOTO
06133	ARROYO DE LA ALEMEDA
06134	POTRERO DE LOS CERRITOS
06135	MISSION SAN JOSE
06136	AGUA CALIENTE
06137	TULARCITOS-HIGUERA
06138	MILPITAS-ALVISO
06139	RINCON DE LOS ESTEROS-WHITE
06140	RINCON DE LOS ESTEROS-BERREYESA
06141	RINCON DE LOS ESTEROS-ALVISO
06142	EMBARCADERO DE SANTA CLARA
06143	ULISTAC
06144	PASTORIA DE LAS BORREGAS
	POSOLMI
06146	RINCON DE SAN FRANCISQUITO
06147	
06148	PULGAS
0.61.40	0.231 342 000

06150 BURI BURI 06151 CANADA DE GUADALUPE LA VISITACTION Y RODEO VIEJO 06152 CANADA DE GUADALUPE Y RODEO VIEJO RINCON DE LAS SALINAS Y POTRERO VIEJO 06153 06154 SAN MIGUEL-NOE PUEBLO LANDS OF SAN FRANCISCO 06155 06156 MISSION DOLORES MISSION DOLORES 50 VARA LOT IN-DE HARO 06157 MISSION DOLORES-BERNAL 06158 OJO D AGUA D FIGUEROA S F 06159 06160 MISSION DOLORES SUERTE IN 06161 MISSION DOLORES SAN FRANCISCO 06162 06163 LAGUNA DE LA MERCED 06164 SAN PEDRO-SANCHEZ 06165 CORRAL DE TIERRA-PALOMARES 06166 CORRAL DE TIERRA-VASQUEZ 06167 FELIZ 06168 CANADA DE RAYMUNDO 06169 MIRAMONTES 06170 CANADA DE VERDE Y ARROYO DE LA PURISIMA 06171 SAN GREGORIO-RODRIGUEZ 06172 SAN GREGORIO-CASTRO 06173 EL CORTE DE MADERA 06174 SAN FRANCISQUITO-RODRIGUEZ LA PURISIMA CONCEPCION 06175 06176 SAN ANTONIO-MESA 06177 SANTA CLARA TR NR-ENRIGHT EL POTRERO DE SANTA CLARA 06178 06179 PUEBLO LANDS OF SAN JOSE 06180 OPALA CANADA DE PALA 06181 06182 LOS HUECOS 06183 YERBA BUENA 06184 SANTA TERESA 06185 SAN JUAN BAUTISTA 06186 LOS COCHES 06187 OUITO 06188 SANTA CLARA MISSION TR 06189 SANTA CLARA COUNTY-BENNETT 06190 SAN ANTONIO OR PESCADERO BUTANO 06191 06192 RINCONADA DE LOS GATOS 06193 CANADA DE LOS CAPITANCILLOS 06194 LOS CAPITANCILLOS 06195 SAN VICENTE - BERREYESA 06196 LA LAGUNA SECA 06197 CANADA DE SAN FELIPE Y LAS ANIMAS SANJON DE SANTA RITA 06198

OJO DE AGUA DE LA COCHE 06199 06200 LAS UVAS SHOQUEL AUGMENTATION 06201 06202 SAN AUGUSTIN 06203 ZAYANTA 06204 SAN VICENTE-ESCARRILLA 06205 PUNTA DEL AND NUEVO 06206 AGUA PUERCA Y LAS TRANCAS 06207 REFUGIO CANADA DEL RINCON EN EL RIO SAN LORENZO DE SANTA 06208 CRUZ 06209 LA CARBONERA 06210 SANTA CRUZ MISSION 06211 TRES OJOS DE AGUA 06212 MESA DE OJO DE AGUA 06213 POTREROS Y RINCON DE SAN PADRO DE REGLADO 06214 ARROYO DEL RODEO 06215 SHOQUEL 06216 APTOS LAGUNA DE LAS CALABASAS 06217 06218 LOS CORRALITOS 06219 SAN ANDRES 06220 BOLSA DEL PAJARO 06221 BOLSA DE SAN CAYETANO 06222 VEGA DEL RIO DEL PAJARO 06223 SALSIPUEDES 06224 LAS ANIMAS 06225 SOLIS SAN FRANCISCO DE LAS LLAGAS 06226 06227 LA POLKA 06228 SAN YSIDRO-GILROY 06229 SAN YSIDRO-ORTEGA 06230 LLANO DEL TEQUISQUITA 06231 BOLSA DE SAN FELIPE 06232 SAN JOAQUIN AUSAYMAS Y SAN FELIPE 06233 06234 SAN LUIS GONZAGA PANOCHE DE SAN JUAN Y LOS CARRISALITOS 06235 06236 REAL DE LAS AGUILAS 06237 SANTA ANA Y QUIEN SABE 06238 SAN JUSTO 06239 LOMERIAS MUERTAS 06240 MISSION SAN JUAN BAUTISTA 06241 JURISTAC 06242 LAS AROMITAS Y AGUA CALIENTE 06243 CANADA DE LA CARPENTERIA 06244 LOS CARENEROS- LITTLEJOHN 06245 BOLSA NUEVO Y MORO COJO 06246 LOS CARNEROS-MCDOUGAL 06247 SAN JUAN BAUTISTA TR NR 06248 SAN JUAN BAUTISTA-BREEN

06299

SAN LORENZO-SOBERANES

06249 LOS VERGELES 06250 CIENEGA DEL GABILAN 06251 LA NATIVIDAD 06252 BOLSA DE LAS ESCORPINAS LOS GATOS OR SANTA RITA 06253 06254 BOLSA DEL POTRERO Y MORO COJO OR LA SAGRADA FAMILIA 06255 RINCON DE LAS SALINAS 06256 MONTEREY CITY 06257 LAS SALINAS 06258 MONTEREY COUNTY -CASTRO EL TUCHO 06259 06260 TWO SUERTES 06261 RINCON DE SANJON 06262 MONTEREY COUNTY-COCKS 06263 NACIONAL 06264 SAUSAL EL ALISAL-BERNAL 06265 LLANO DE BUENA VISTA 06266 06267 EL ALISAL-HARTNELL 06268 BIENEGA DE LOS PAICINES ENCINAL Y BUENA ESPERNZA 06269 06270 CHUALAR 06271 ZANJONES RINCON DE LA PUENTE DEL MONTE 06272 06273 GUADALUPE Y LLANITOS DE LOS CORREOS 06274 BUENA VISTA 06275 EL TORO 06276 LAGUNA SECA 06277 SANCITO 06278 NOCHE BUENA 06279 PUNTA DE PINOS 06280 EL PESCADERO-JACKS 06281 MISSION CARMEIO 06282 AGUAJIT CANADA DE LA SEGUNDA 06283 06284 MEADOWS TRACT 06285 LOS LAURELLES-RANSOM 06286 EL POTRERO DE SAN CARLOS 06287 SAN FRANCISQUITO 06288 EL SUR 06289 LOS LAURELLES-BERONDA 06290 CORRAL DE TIERRA-MCCOBB 06291 LOS TULARCITOS-GOMEZ 06292 PARAJE DE SANCHEZ 06293 SAN VICENTE-MUNRASS 06294 EX-MISSION SOLEDAD 06295 MISSION SOLEDAD 06296 LOS COCHES 06297 ARROYO SECO-TORRE 06298 POSA DE LOS OSITOS

06300	SAN LORENZO-SANCHEZ
06301	LAGUNA DE TACHE
06302	SAN LORENZO-RANDALL
06303	SAN BERNABE
06304	SAN BENITO
06305	SAN LUCAS
06306	SAN BERNARDO-SOBERANES
06307	MILPITAS
06308	MISSION SAN ANTONIO
06309	SAN MIGUELITO
06310	EL PIOJO
06311	LOS OJITOS
06312	PLEYTO
	MISSION SAN MIGUEL
06314	CHOLAME
06315	HUERHUERO
06316	SANTA MARGARITA
06317	ATASCADERO
06318	SUNCION
06319	SANTA YSABEL
06320	PASO DE ROBLES
06321	PIEDRA BLANCA
06322	SAN SIMEON
06323	SANTA ROSA-ESTRADA
06324	SAN GERONIMO
06325	MORO Y CAYUCOS
06326	SAN BERNADO-CANE
06327	SAN LUISITO
06328	EL CHORRO
06329	POTRERO DE SAN LOUIS OBISPO
06330	HUERTA DE ROMUALDO OR EL CHORRO
06331	CANADA DE LOS OSOS Y PECHO Y ISLAY
06332	
06333	SAN LUIS OBISPO MISSION
06334	RANCHITA DE SANTA FE
06335	SAN MIGUELITO
06336	PISMO
06337	CORRAL DE PIEDRA
06338	SANTA MANUELA
06339	ARROYO GRANDE
06340	HUASNA
	CUYAMA-M A DE LA G Y LATAILLADE
	CUYAMA-CESARIO LATAILLADE
	SAN EMIDIO
06344	EL TEJON
06345	CASTAC
06346	LOS ALAMOS Y AGUA CALIENTE
06347	LA LIEBRE
06348	SISQUOC
06349	TEPUSUET
06350	SUEY

06351 NIPOMA 06352 BOLSA DE CHAMISAL 06353 **GUADALUPE** 06354 PUNTA DE LA LAGUNA 06355 CASMALIA 06356 JESUS MARIA 06357 TODOS SANTOS Y SAN ANTONIO 06358 LOS ALAMOS 06359 TINAOUAIC 06360 LA LAGUNA-GUTIERREZ 06361 LA ZACA CORRAL DE QUATI 06362 06363 CANADA DE LOS PINOS OR COLLEGE RANCHO-CH PR 06364 SAN MARCOS 06365 TEQUEPIS 06366 LOMAS DE LA PURIFICACION 06367 NOJOQUI MISSION OF SANTA YNEZ 06368 06369 SAN CARLOS DE JONATA 06370 SANTA ROSA-COTA SANTA RITA-MALO 06371 MISSION DE LA PURISMA 06372 06373 MISSION LA PURISMA 06374 LOMPOC PUNTA DE LA CONCEPCION 06375 06376 LA MISSION VIEJA DE LA PURISMA 06377 CANADA DE SALSIPUEDES 06378 SAN JULIAN 06379 NUESTRA SENORA DEL REFUGIO 06380 CANADA DE CORRAL LOS DOS PUEBLOS 06381 LA GOLETA 06382 06383 LAS CIENEGITAS 06384 MISSION SANTA BARBARA LAS POSITAS Y LA CALERA 06385 06386 PUEBLO LANDS OF SANTA BARBARA 06387 EL RINCON-ARELLANES 06388 SANTA ANA 06389 OJAI 06390 CANADA LARGA D VERDE CANADA DE SAN MIGUELITO 06391 06392 MISSION SAN BUENAVENTURA 06393 LOT IN MISSION SAN BUENAVENTURA SAN MIGUEL-OLIVAS & LORENZANA 06394 SANTA PAULA Y SATICOY 06395 06396 EX-MISSION SAN BUENAVENTURA LANDS OF 06397 SESPE 06398 TEMASCAL 06399 SAN FRANCISCO 06400 SIMI

06401	LAS POSAS
06402	
06403	RIO DE SANTA CLARA
06404	
06405	SANTA ROSA ISLAND OF
06406	GUADALASCA
06407	CALLEGUAS
06408	EL CONEJO
06409	EL ESCORPION
06410	EX-MISSION DE SAN FERNANDO
06410	EL ENCINO
06411	MISSION SAN FERNANDO
	TUJUNGA
	LA CANADA
06415	
06416	
06417	
06418	LAND 1000 VARAS SQ-SEXTON
	PROSPERO TRACT
	SAN GABRIEL TR NR-WHITE
	HUERTO DE CUATI
	SAN PASCUAL-WILSON
06423	
06424	PROVIDENCIA
06425	CATHUENGA
06426	LOS FELIS
06427	LOS ANGELES CITY LANDS OF
06428	LAS CIENEGAS
06429	LA BREA
06430	SAN ANTONIO OR RODEO DE LAS AGUAS
06431	SAN JOSE DE BUENOS AYRES
	SAN VICENTE Y SANTA MONICA
	TOPANGA MALIBU SEQUIT
06434	
06435	RINCON DE LOS BUEYES
06436	CIENEGA O PASO DE LA TIJERA
06437	AGUAJE DE CENTINELLA
06438	SAUSAL REDONDO
06439	LOS PALOS VERDES
06440	SAN PEDRO-DOMINGUEZ
06441	TAJAUTA
06442	SAN ANTONIO-LUGE
06443	LA MERCED
06444	POTRERO CHICO
06445	POTRERO GRANDE
06446	POTRERO DE FELIPE LUGO
06447	SAN FRANCISCO-DALTON
06448	MISSION SAN GABRIEL
06449	SAN GABRIEL TR NR-AGUILAR
06450	SAN GABRIEL TR NR-SALES

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SAN GABRIEL TR NR-SIMEON
06451
06452
        SAN GABRIEL TR NR-SEXTON
06453
        SAN GABRIEL TR NR-DOMINGO
06454
        SANTA ANITA
06455
       AZUSA-DUARTE
06456
        AZUSA-DALTON
06457
        SAN JOSE ADDITION TO
06458
        SAN JOSE-DALTON ET AL
06459
        LOS NOGALES
06460
       LA PUENTE
06461
       RINCON DE LA BREA
06462
       LA HABRA
06463
        SANTA GERTRUDES-COLIMA
06464
        PASO DE BARTOLO-PICO
        PASO DE BARTOLO-GUIRADO
06465
06466
        SANTA GERTRUDES-MCFARLAND & DOWNEY
06467
       LOS CERRITOS
06468
        LOS ALAMITOS
       LA BOLSA CHICA
06469
       SANTA CATALINA ISLAND
06470
06471
       LAS BOLSAS
06472
       LOS COYOTES
06473
        SAN JUAN CAJON DE SANTA ANA
        SANTIAGO DE SANTA ANA
06474
        CANON DE SANTA ANA
06475
06476
        EL RINCON
        SANTA ANA DEL CHINO
06477
06478
        SANTA ANA DEL CHINO ADDITION TO
06479
        CUCAMONGA
06480
        MUSCUPIABE
06481
        SAN BERNADINO
        JURUPA-ROUBIDEAU
06482
06483
        JURUPA-STEARNS
06484
        LA SIERRA-SEPULVEDA
        LA SIERRA-YORBA
06485
        SOBRANTE DE SAN JACINTO
06486
06487
        SAN JACINTO NUEVO Y POTRERO
        SAN JACINTO & SAN GORGONIO TRACT BETWEEN
06488
06489
        SAN JACINTO VIEJO
06490
        PAUBA
06491
        VALLEY O TEMECULA
06492
        TEMECULA
06493
        SANTA ROSA-MORINO
06494
        POTREROS OF SAN JUAN CAPISTRANO
06495
        LA LAGUNA-STERANS
06496
        MISSION VIEJO OR LA PAZ
06497
        TRABUCO
06498
        CANADA DE LOS ALISOS
06499
        LOMA DE SANTIAGO
06500
        SAN JOAQUIN
06501
        NIGUEL
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BOCA DE LA PLAYA 06502 MISSION SAN JUAN CAPISTRANO 5 TR AT-CH PR 06503 06504 EX-MISSION SAN JUAN CAPISTRANO 3 TR AT-CH PR 06505 SANTA MARGARITA Y LAS FLORES 06506 MONSERATE 06507 PAUMA 06508 VALLE DE SAN JOSE-PORTILLA 06509 SAN JOSE DEL VALLE 06510 SANTA YSABEL VALLE DE SAN FELIPA 06511 06512 CUYAMACA 06513 CANADA DE SAN VICENTE Y MESA DEL PADRE 06514 VALLE DE PAMO OR SANTA MARIA 06515 GUEJITO 06516 RINCON DEL DIABLO 06517 LOS VALLECITOS DE SAN MARCOS 06518 BUENA VISTA 06519 **GUAJOME** 06520 EX-MISSION SAN LUIS REY 4 TRACTS AT-CH PR 06521 AGUA HEDIONDA 06522 LOS ENCENITOS 06523 SAN DIEGITO 06524 SAN BERNARDO-SNOOK 06525 LOS PENASOUITOS 06526 SAN DIEGO PUEBLO LANDS OF 06527 SAN DIEGO ISLAND OR PENINSULA OF 06528 LA NACION 06529 OTAY-ESTUDILLO 06530 OTAY-DOMINGUEZ 06531 JAMACHO 06532 MISSION SAN DIEGO 06533 EX-MISSION SAN DIEGO 3 TR AT - CH PR 06534 EL CAJON 06535 CANADA DE LOS COCHES-INSIDE 534 06536 EL CHAMISAL LOS PRIETOS Y NAJALAYEGUA 06537 06538 CUCA OR EL POTRERO 06539 BOCA DE SANTA MONICA 06540 ARROYO DE LA LAGUNA 06541 JAMUL PUEBLO LOT NO 6 06542 06543 CAMARITAS IN SAN FRANCISCO 06545 LAS VIRGENES 06546 CANADA DE LOS NOGALES 06547 PASO DE BARTOLO-MCFARLAND & DOWNEY 06548 PASO DE BARTOLO-SEPULVEDA 06549 LAS CRUCES 06550 EL SOBRANTE 06551 CANADA DEL CORTE DE MADERA SAN JOSE Y SUR CHIQUITO 06552

06553	ONE SUERE
06554	
06556	OO VARA LOT AT SAN PEDRO
06557	RANCHO AGUAS NIEVES
06558	
06560	EX-MISSION SAN JOSE
08001	BEAUBIEN AND MIRANDA
08002	LUIS MARIA BACA #4
08004	MONTROSE RES
08005	SANGRE DE CRISTO
08006	TIERRA AMARILLA
08007	ZAPATO
08008	
35001	AGUA SALADA
35003	ALAMEDA
35004	ALAMITOS
35007	CASA COLORADO
35007	ANGOSTURA
35010	JOSE SUTTON
35011	
35012	ANTONIO DE ABEYTIA
35013	~
35014	
35015	
35018	PEDRO ARMENDARIS
35021	ARROYO HONDO
	ARROYO SECO
	BARTOLOME FERNANDEZ
	BARTOLOME SANCHEZ
35026	
35027	
	BERNABE MONTANO
	BERNALLILO
35030	BLACK MESA
35031 35032	BOSQUE DEL APACHE M AND S MONTOYA
35032	BRACITO
35033	CAJA DEL RIO
35034	CANADA DE COCHITI
35035	CANADA DE LOS ALAMOS
35030	ANTONIO SEDILLO
35041	ANTONIO SEDINIO ANTONIO ARMENTA
35042	CANON DE CARNUE
35043	CANON DE CHAMA
35043	CANON DE AGUA
35046	BACA LOCATION NUMBER TWO
35047	CANON DE SAN DIEGO
35049	NOLAN
35050	SALVADOR GONZALES

35051	GASPAR ORTIZ
35052	CHILLILI
35056	DONA ANA BEND COLONY
35057	MESILLA CIVIL COLONY
35058	SANTO TOMAS DE YTURBIDE
35059	REFUGIO COLONY
35060	JUAN JOSE LOBATO
35061	CRISTOVAL DE LA SERNA
35062	CUBERO
35062	CUYAMUNGUE PUEBLO
35064	DABOLOS
35068	ELENA GALLEGOS
35069	PUEBLO OF SANTA ANA
35072	JUAN BATISTA VALDEZ
35074	
35076	FELIPE TAFOYA
35077	
35078	FRANCISCO MONTES VIGIL
35079	GALISTEO
35080	GIJOSA
35081	BENJAMIN E EDWARDS
35082	GOTERA
35087	IGNACIO CHAVEZ
35088	JACONA
35090	JOHN SCOLLY
35091	JUAN DE GABALDON
35092	
35093	NUESTRA SENORA DE LA LUZ DE LAS LAGUN
35094	LAGUNA PUEBLO
35096	LA MAJADA
35098	LA SALINA
35099	LAS VEGAS
35101	LO DE PADILLA
35102	LOS CERRILLOS
35105	LOS FRIJOLES
35107	LOS TRIGOS
35108	ANTONIO SALAZAR
35110	UNA DE GATO
35111	MANZANO
35113	
35115	JUAN DE MESTAS
35116	MORA
35118	NICHOLAS DURAN DE CHAVEZ
35121	NUESTRA SENORA DEL ROSARIO SAN FERNANDO Y SANTIAGO
35121	OJO DE BORREGO
35125	OJO CALIENTE
35125	OJO CALIENTE OJO DE LA CABRA
35127	OJO DEL ESPIRITU SANTO
35129	OJO DE SAN JOSE
35130	
35132	ORTIZ MINE

35133	PABLO MONTOYA
35134	PACHECO
	PAGUATE
35136	PAJARITO
35137	PENA BLANCA
	PETACA
	PIEDRE LUMBRE
	PLAZA BLANCA
35142	PLAZA COLORADO
35143	POLVADERA
35144	PRESTON BECK
	PUEBLO OF ACOMA
	PUEBLO OF COCHITI
	PUEBLO OF ISLETA
	PUEBLO OF JEMEZ
35149	PUEBLO OF NAMBE
	PECOS PUEBLO
	PUEBLO OF PICURIS
	PUEBLO OF POJAOQUE
	PUEBLO OF SANDIA
	PUEBLO OF SAN FELIPE
35158	PUEBLO OF SAN IDELFONSO
	PUEBLO OF SAN JUAN
35160	JOSE MANUEL SANCHEZ BACA
35162	SANTA CLARA PUEBLO
35163	PUEBLO OF SANTO DOMINGO
35164	PUEBLO OF TAOS
	PUEBLO OF TESUQUE
	PUEBLO OF ZIA
	PUEBLO OF ZUNI
35168	RAMON VIGIL
	RANCHO DEL RIO GRANDE
	RANCHO EL RIJO
35189	RIO COLORADO
35192	
	RITO DE LOS FRIJOLES
	SAN ANTONIO DEL RIO COLORADO
	SAN ANTONIO DE LAS HUERTAS
35198	SAN CLEMENTE
35190	SAN CHEMENTE SAN CRISTOVAL
35200	SANGRE DE CRISTO
	SAN JOAQUIN DEL NACIEMENTO
	SAN GOAQOIN DEL NACIEMENTO SAN MARCOS PUEBLO
	SAN MIGUEL DEL BADO
	SAN PEDRO
35206	SANTA BARBARA
35207	SANTA CRUZ
35208	SANTO DOMINGO DE CUNDIYO
	SANTE FE
35211	SANTA ROSA DE CUBERO

35286

35213	SANTA TERESA
35216	
35218	SAN YSIDRO
35219	SEBASTIAN DE VARGAS
35220	SEVILLETA
35221	SITIO DE JUANA LOPEZ
35222	SITIO DE LOS CERRILLOS
35223	SOCORRO
35224	
35225	
35226	TECOLOTE
35227	TEJON
35228	TIERRA AMARILLA
35229	TOME
35230	TORREON
35231	TOWN OF ABIQUI
35232	TOWN OF ALAMEDA
35233	TOWN OF ALBUQUERQUE
35237	
35241	
35242	SEBASTIAN MARTIN
35243	TOWN OF CHIMITA
35245	CIENEGUILLA
35250	IGNACIO SANCHEZ VERGASA
35251	TOWN OF LOS TRAMPAS
35253	LUIS ARMENTA
35257	SANTA ANA
35258	BALTHAZAR BACA
35259	TOWN OF TECOLATE
35260	TOWN OF TEJON
35262	LAS TRUCHAS
35264	VALLECITO
35265	LAMY
	<del></del>
35266	AGUA NEGRA
35267	PEREA
35269	ALEXANDER VALLE
35270	ANTONIO CHAVEZ
35271	NERIO ANTONIO MONTOYA
35272	BACA LOCATION NUMBER ONE
	JOSE TRUJILLO
35275	
35276	ROGUE LOVATO
35278	MARQUEZ AND PADILLA
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35279	CEBOLLA
35280	JOSE F BACA Y TERRUS
35281	JOAQUIN MESTAS
35283	BACA Y PINO
35285	PUEBLO OF SANTA CLARA
25206	DITEDIAC OF CANTO DOMINICO

PUEBLOS OF SANTO DOMINGO AND SAN FELIPE

35300	ZIA SANTA ANA AND JEMEZ
35301	SERAFIN RAMIREZ
35302	PUEBLO OF SANTA ANA
35303	BERNARDINO DE SENA